ORIGINAL

Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Carriage of the Transmissions	)	**CS Docket No. 98-120**
of Digital Television Broadcast Stations	)	
	)	
Amendments to Part 76	)	
of the Commission's Rules	)	

TO: The Commission

COMMENTS OF
THE ASSOCIATION OF AMERICA'S PUBLIC TELEVISION STATIONS,
THE PUBLIC BROADCASTING SERVICE, AND
THE CORPORATION FOR PUBLIC BROADCASTING

Marilyn Mohrman-Gillis
Lonna M. Thompson
Association of America's Public
Television Stations
1350 Connecticut Avenue, N.W.
Suite 200
Washington, D.C. 20036
202-887-1700

Kathleen Cox
Robert M. Winteringham
Corporation for Public Broadcasting
901 E Street, N.W.
Third Floor
Washington, D.C. 20004
202-879-9600

Gregory Ferenbach
Patricia DiRuggiero
Public Broadcasting Service
1320 Braddock Place
Alexandria, Virginia 22314
703-739-5000

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SUMMARY

The public television community – represented herein by the Association of America's Public Television Stations, the Public Broadcasting Service and the Corporation for Public Broadcasting – is committed to the successful transition to digital television, which will vastly enhance public television's educational and public service capabilities. High definition digital television, with its superior picture clarity and digital sound, will greatly enhance public television's signature programming. In addition, through digital multicasting, public television stations can increase their public service and educational content, enhance their range of services, and better serve underserved audiences. Digital television will also enable public television stations to send educational and mission-related data and images over the air, providing powerful new instructional tools.

Cable carriage of digital broadcast signals is fundamental to the success of the digital transition. Congress mandated that all television licensees convert to digital broadcasting by 2003 and return their analog channels to the government by the end of 2006. If cable subscribers – approximately 67 percent of all television viewers – lack access to digital broadcast signals during the transition period, cable subscribers will be reluctant to purchase digital receivers, and investors and other funding

sources will be hesitant to underwrite the substantial cost of digital conversion. In particular, without cable carriage of public television stations' digital signals during the transition period, the public will not have access to public television's noncommercial programming, public television stations will have great difficulty obtaining funding to proceed with the conversion to digital, and deployment of public television's innovative digital programming and services will stall.

The 1992 Cable Act clearly authorizes the Commission to promulgate must carry rules for digital signals. The same significant governmental interests cited in support of must carry requirements in the analog environment – ensuring the continued availability of free over-the-air television broadcast service, encouraging dissemination of information from a multiplicity of sources, and promoting fair competition – support must carry requirements for digital signals. In addition, cable carriage of public television stations' digital signals is consistent with Congress's mandate that all Americans have unimpeded access to public television's services. Cable's gatekeeper role, cable operators' incentives to deny carriage to public television stations, and cable's history of dropping or shifting noncommercial channels in the absence of cable carriage requirements further indicate the need for digital must carry rules for public television.

For the transition period, public broadcasters urge the Commission to adopt a rule that requires cable operators to carry a qualified public television station's digital signal as soon as the station begins digital broadcasting. Waivers of this general rule would be permitted in limited circumstances involving hardship situations during the early years of the transition period.

This approach to cable carriage during the transition period would not place a significant burden on cable systems. Over the last several years, cable systems have spent billions of dollars on system-wide upgrades and other steps that have increased capacity. This trend, together with the relatively small number of public television stations that would require carriage on any system, and the gradual nature of public television's digital rollout schedule, make it likely that cable systems will be able to accommodate public television stations' digital transmissions without displacing any current cable programming.

Importantly, the Commission's cable carriage rule for public television should extend to the broad range of educational, mission-related services offered by public television stations. This includes multiple programming streams, as well as the enhanced services digital technology will allow public television to offer. The term "ancillary or supplementary service" should be defined narrowly for public television, so that all of public

television's mission-related services are subject to the carriage requirement. The prohibition against material degradation and other statutory constraints involving cable carriage of broadcast signals must be enforced in the digital environment.

The Commission should move promptly to mandate cable carriage of the digital signals of public television stations during the transition period and beyond. With several public television stations broadcasting digital signals now and others planning to begin digital broadcasting over the next year, and with many other public television stations seeking funding to support their conversion to digital, it is critical that the Commission act quickly to implement cable carriage requirements for public television. The Commission should act without delay to ensure that public television's innovative plans for the digital era become a reality for audiences throughout the United States.

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THE CORPORATION FOR PUBLIC BROADCASTING

The Association of America's Public Television Stations ("APTS"), the Public Broadcasting Service ("PBS"), and the Corporation for Public Broadcasting ("CPB") (collectively, "public broadcasters") hereby provide comments in response to the Commission's *Notice of Proposed Rulemaking* ("*Notice*") in this proceeding, issued July 10, 1998.

APTS and PBS are nonprofit membership organizations whose members are licensees of virtually all of the nation's public television stations. APTS serves as the direct national representative of these stations, presenting their views and participating in proceedings before Congress and executive and administrative agencies, and in other venues. PBS provides national program distribution and other program-related services to the

nation's public television stations and the general public. CPB is a private, non-profit corporation authorized by the Public Broadcasting Act of 1967. CPB uses federal appropriations to facilitate and promote a nationwide system of public broadcasting.

The subject of this rulemaking – cable carriage requirements for digital broadcast signals – is of critical importance to public television. As explained below, digital broadcasting holds great promise to enhance public television's ability to fulfill its educational and public service mission. But cable subscribers must be able to receive public television's digital signals in order to take advantage of that promise. Moreover, cable carriage of these digital signals is essential to ensure that all Americans have access to public television's services, as Congress has mandated. No cable service can substitute for the unique noncommercial services provided by public television pursuant to that mandate.

Immediate action by the Commission to ensure effective cable carriage of public television's digital signals is both mandated by Section 5 of the 1992 Cable Act[1] and critical to the policies underlying that statute. The initiation of this rulemaking was delayed beyond the time prescribed by statute, and the extension of the deadline for comments has added even more time to the process. With the launch of digital broadcasting by many

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[1] Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, 106 Stat. 1460 (1992) ("1992 Cable Act"). Section 5

stations just around the corner, and with other stations investing heavily in preparation for digital conversion, the Commission must act quickly to provide certainty regarding cable carriage rights for digital broadcast signals and to ensure the success of the digital transition.

In these comments, public broadcasters focus on issues that are of special importance to public television.[2] Among other things, the comments describe a pragmatic approach to requiring carriage of public television stations' digital signals during the transition period, with minimal burden on cable. In addition, the comments explain the importance of ensuring carriage of the full range of public television's educational, mission-related digital services.

I. INTRODUCTION

A. The Importance of Digital Television to Public Television's Educational and Public Service Mission

Public television has a strong interest in the future of digital television and is committed to a successful transition to digital technology. Congress created public television to provide a unique source of noncommercial programming. Rather than simply reproducing programming offered by commercial broadcasters, Congress intended that public

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of the 1992 Cable Act is codified at 47 U.S.C. § 535.

[2] The comments of other broadcaster organizations will cover in depth other issues raised by the *Notice*.

broadcasting would serve the needs of unserved and underserved audiences.[3] Since that time, Congress has pursued a goal of universal access to public television. In 1992, Congress declared that "it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunications services. . . ."[4]

Pursuant to Congress's mandate, public television has devoted substantial effort to fulfilling its educational and public service mission, providing creative programming geared especially to the needs of children, minority audiences, and the disabled. In furtherance of its mission, for over 30 years public television has participated actively in the development and use of innovative technologies. Public television employs a combination of technologies, including broadcast, satellite networks, DBS, cable, datacasting, closed captioning, interactive video discs, and the Internet, to educate millions of children and adults at home, in classrooms, in daycare centers, and at work.

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[3] *See, e.g.*, H.R. Rep. No. 572, 90th Cong., 1st Sess. 1 (1967), *reprinted in* 1967 U.S.C.C.A.N. 1799, 1801 (public television serves an important purpose because "the economic realities of commercial broadcasting do not permit widespread commercial production and distribution of educational and cultural programs which do not have a mass audience appeal"); S. Rep. No. 222, 90th Cong., 1st Sess. 1 (1967), *reprinted in* 1967 U.S.C.C.A.N. 1772, 1779 (describing a system of locally oriented public television stations that would be "uniquely fitted" to offer "programs of high quality, obtained from diverse sources").

[4] Public Telecommunications Act of 1992, Pub. L. No. 102-356, § 4, 106 Stat. 949 (1992) (amending 47 U.S.C. § 396(a)).

This tradition of leadership continues in the development of digital technology. Among other things, public television has played an active role in developing the digital transmission standard and in testing various forms of digital technology.[5] Indeed, public broadcasters were the first North American broadcasters to develop all-digital networks and technical facilities. Several major market public television stations are currently on the air transmitting digital signals with experimental licenses.

Public television expects to use digital technology in a variety of ways in fulfilling its educational and public service mission. High definition television will significantly enhance viewers' enjoyment of many public television signature programs that are well suited to this new technology. These include, in particular, programs focused on the performing arts, drama and theater, science and nature, and travel and exploration.

Digital technology also will allow multicasting of standard definition programming, allowing public television to bring significantly more

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[5] Public television played an active role in developing the transmission standard for digital television and served on the Commission's Advisory Committee on Advanced Television Service, whose recommendations gave rise to the adoption of the "ATSC Standard." In addition, PBS was one of the founding members of the Advanced Television Test Center, which conducted laboratory tests of the Grand Alliance system. PBS also conducted field tests of the Grand Alliance system in Charlotte, North Carolina. WMVT, the public television station in Milwaukee, was the first broadcaster to provide an HDTV satellite test signal. And KCTS in Seattle was the first public broadcaster to begin transmitting digital signals using the ATSC standard, and was the first station in the United States to produce HDTV programming.

educational programming to new audiences.[6] For example, on a single digital channel a public television station could carry, in addition to its current programming, a dedicated children's channel, an adult lifelong learning channel, and a local affairs channel. Multicasting will also permit public television to provide a more comprehensive Ready to Learn service to children, parents and caregivers[7] and will allow more stations to provide K-12 services to more elementary and secondary students throughout the country.

In addition, digital technology will enable public television to expand the way in which it communicates with audiences. With digital broadcasting, stations will be able to distribute virtually any kind of video, audio, or data, either alone or in conjunction with their programs. The ability to integrate video-based programs with on-line data will allow students and teachers to download course material, textbooks, teacher and student

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[6] A station could provide high definition programming at some times of the day and multicasting of standard definition programming at other times.

[7] "Ready to Learn" is a comprehensive programming and outreach service designed to assure school readiness and success for children, particularly ages 2-6. Although many public television stations currently are able to offer the basic video portion of the Ready to Learn service, some stations are unable to offer the entire range of Ready to Learn programs due to limited channel capacity and the commitment to meet other educational needs of their viewers. Multicasting will make it possible for stations to carry the full complement of Ready to Learn programming.

Moreover, digital television can provide more training to parents and caregivers. Currently, training for the Ready to Learn service is provided by in-person workshops in local communities. By transmitting training programming through a multiplexed digital channel, public television could provide training to far more people in an efficient and cost-effective manner.

guides, and teacher training material embedded in instructional programming. As one example, a teacher could customize a curriculum on how the Constitution was written by combining video segments from the public television documentary on Thomas Jefferson with additional video, audio and text embedded in the program signal.[8]

In anticipation of the upcoming conversion to digital technology, public broadcasting has undertaken a comprehensive planning process to shape its digital future. The analysis sought to identify needs that are not met, or are not adequately met, in the commercial marketplace, which public broadcasting is uniquely well-positioned to meet. As a result of this planning process, public broadcasting expects to focus particular attention on using digital technology in connection with (1) early childhood services (including expansion of the Ready to Learn service); (2) technology integration in K-12

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[8] As another example, WGBH, Boston, is transforming its premier science program *NOVA* into multimedia tools for teaching science. The project will organize materials (video stories and vignettes, animation, video clips, graphics, text and still images) around subjects from which teachers can draw to create customized visuals. These will enable students to explore, simulate and analyze scientific principles in the classroom. Digital transmissions thus will allow the audience to explore layers of information that will enhance the enjoyment and educational value of programming.

The data delivery capability of digital technology also will enhance the quality of the Ready to Learn service, making it possible to customize the service and provide interactive training and other supplemental material to parents and caregivers to address specific needs of children. For example, data that will be a part of the *Sesame Street* program will allow caregivers to download educational exercises and games before, during, or after the program.

education (with the goal of making enhanced K-12 services available to all schools); (3) workforce education and training (with the goal of increasing the reach of post-secondary telecourses and workplace training so that they will be available to all adult learners and workers); and (4) accessibility to digital services by unserved and underserved audiences (particularly physically challenged and non-English speaking people).[9]

Public television's implementation of its plan for the digital age will greatly expand the amount and diversity of educational and other public service programming available to the American public. The Commission's mandate that all noncommercial educational television stations convert to digital by 2003 will impose a tremendous financial burden on public television stations.[10] Nevertheless, in view of the great promise of digital for its educational and public service mission, public television is committed to pursuing the plan it has developed and to realizing that promise to the maximum extent possible.

B. The Importance to Public Television of Prompt Action on Must carry Rules to Enable a Successful Digital Transition

Prompt action on must carry rules is of great importance to public television. As the Commission is well aware, it is critical that the

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[9] A more detailed description of public television's plan for use of digital technology is contained in Exhibit A to these comments.

[10] The costs of transitioning noncommercial stations to digital services (including the cost of new facilities and the expense of dual analog and digital operation during the transition) are likely to exceed $1.7 billion.

transition to digital be both orderly and rapid. Congress has mandated that all television licensees return their analog channels to the government by the end of 2006. If the digital rollout falters, the transition will be prolonged and Congress's and the Commission's intent to have a speedy and efficient return of the analog spectrum will be frustrated.

Because the Commission has set 2003 as the deadline for public television stations to inaugurate digital service, much of public television's digital rollout will occur somewhat later than that of commercial broadcasters.[11] However, five public television stations are currently broadcasting in digital, and approximately one quarter of public television licensees expect to begin digital service by the end of the year 2000.[12] Any delay in the transition process will impose significant additional financial burdens on these stations, since it will extend the period in which they must operate both analog and digital facilities. In view of public television's limited financial resources, such additional burdens would be devastating for many stations.

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[11] Exhibit B to these comments provides information on the anticipated timing of public television's digital rollout.

[12] Although only approximately one fourth of public television licensees plan to inaugurate digital service by the end of the year 2000, most of the stations are located in larger markets. As a group, they cover over one-third of U.S. television households. We expect that by 2001 public television digital services will cover more than half of U.S. television households.

The majority of public television stations plan to complete their digital conversion later, four to five years from now.[13] But these broadcasters, too, are highly dependent on the early success of the digital transition. In many cases, the earlier deadlines for commercial stations drive the digital conversion process, since public television stations must act now to forge partnerships with commercial stations on matters such as construction of new towers. Moreover, if it appears that obstacles are emerging and consumers are not switching to digital in sufficient numbers over the next few years, it will become increasingly difficult for public television stations to obtain the financial resources necessary to support the very significant expenses of digital conversion.[14]

In order to avoid a situation in which the digital transition falters in its early stages, the Commission must move quickly to establish digital must carry rules. The Commission itself has recognized that cable participation during the transition will be essential to the successful

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[13] All public television stations are moving ahead now with digital conversion preparations, searching for funding to cover conversion expenses and beginning engineering work.

[14] Public television stations are advocating for substantial federal funding to support digital conversion costs, but it is clear that any federal support they receive will cover only a portion of these costs. A significant portion of the funding will have to come from other sources, including state and local governments and viewer contribution campaigns. If experience in the early years of the transition indicates that viewers are not willing or able to access digital broadcast signals, it will be extremely difficult to persuade these traditional funding sources to provide sufficient support for public television stations to make the digital conversion.

introduction of digital television and the return by broadcasters of the analog spectrum.[15] Currently, approximately 67 percent of television viewers are cable subscribers. If cable operators deny these viewers access to broadcasters' new digital signals, the transition will surely fail. Most obviously, if cable subscribers lack access to digital broadcast signals, investors and other funding sources will be unwilling to underwrite broadcasters' substantial conversion costs.

As explained further below, ensuring that cable subscribers can access digital broadcast signals is particularly important for public television, in view of its educational and public service mission and Congress's mandate that all Americans have access to public television. The Commission should move quickly to ensure that digital must carry rules for public television are in place as quickly as possible.

II. THE COMMISSION HAS AUTHORITY TO PROMULGATE MUST CARRY RULES FOR DIGITAL SIGNALS.

The *Notice* at the outset asks for comment on the Commission's conclusion that it has authority to fashion must carry rules for digital broadcast signals.[16] The Commission clearly possesses such authority; indeed, it has an obligation to proceed promptly with the promulgation of rules. Sections 4 and 5 of the Cable Act require cable carriage of

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15 *Notice* at ¶ 14.

16 *Notice* at ¶ 13.

commercial and public television signals respectively and give the Commission authority to promulgate regulations to implement those requirements.[17] On their face, the carriage requirements are not confined to analog signals; they apply to any signal broadcast by commercial and public television stations.[18] Thus, the terms of Sections 4 and 5, standing alone, provide the Commission with authority to regulate cable carriage of both analog and digital broadcast signals.

The policies underlying Section 5 also support mandated cable carriage of all signals broadcast by public television stations. Congress stated in its findings that the government has a "substantial interest in making *all* nonduplicative local public television services available on cable systems."[19] The governmental interests in educating citizens, in assuring access to public television for all Americans, and in promoting a diversity of views, cited by Congress when it enacted Section 5,[20] clearly require carriage of all of public television stations' signals.

Section 4(b)(4)(B) of the 1992 Cable Act, cited in the *Notice*, provides a further indication that Congress intends the Commission to

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17 *See* 47 U.S.C. §§ 534(d), (f), 535(j).

18 *See, e.g.,* 47 U.S.C. § 535(a) ("each cable operator of a cable system shall carry the signals of qualified noncommercial educational television stations . . .").

19 1992 Cable Act, Section 2(8) (emphasis added).

20 1992 Cable Act, Sections 2(7), 2(8).

promulgate rules providing cable carriage requirements for digital broadcast signals promptly. That provision explicitly directs the Commission to "initiate a proceeding to establish any changes in the signal carriage requirements of cable television systems necessary to ensure cable carriage" of advanced television signals.[21]

As the Commission notes (*Notice* at ¶ 57), Section 4(b)(4)(B) refers to commercial television stations, and Section 5 contains no parallel provision referring to noncommercial stations. However, the Commission already has authority to implement must carry requirements for all public television signals under Section 5. Nothing in the legislative history indicates that Congress meant to negate the Commission's existing authority to modify its must carry rules for public television to take account of the characteristics of digital signals.[22] The failure to include in Section 5 a

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[21] 47 U.S.C. § 534(b)(4)(B). This provision requires the Commission to proceed with a cable carriage rulemaking "at such time as" it prescribes modifications of standards for television broadcast signals. The provision refers to "ensur[ing] cable carriage" of digital signals. It clearly does not authorize the Commission to restrict or eliminate carriage requirements for such signals. Rather, it reflects Congress's recognition that differences between analog and advanced television technology might require some revisions to the technical standards for cable carriage. *See* H.R. Rep. No. 628, 102d Cong., 2d Sess. 94 (1992).

[22] In fact, the committee reports, in describing Section 4(b)(4)(B), refer broadly to cable carriage of advanced television signals, without any apparent limitation to commercial stations. *See* H.R. Rep. No. 862, 102d Cong., 2d Sess. 67 (1992); H.R. Rep. No. 628, p. 94; S. Rep. No. 92, 102d Cong., 1st Sess. 85 (1991).

provision that parallels Section 4(b)(4)(B) may have been an oversight, or it may simply have reflected the view that such a provision was unnecessary.

Any uncertainty on this point has been eliminated by Congress's action in the Telecommunications Act of 1996. As added by the 1996 Act, Section 336 of the Communications Act states that ancillary or supplementary services provided by broadcast licensees on their digital spectrum shall not have rights to carriage "under section 534 [commercial must carry] or 535 [noncommercial must carry] of this title."[23] The explicit mention of 47 U.S.C. § 535 in this context makes it plain that, apart from the case of ancillary or supplementary services, Congress anticipated that the requirements of Section 5 would apply to digital broadcast signals.

III. THE *TURNER* DECISIONS ARE RELEVANT TO THIS PROCEEDING.

The Commission asked for comment regarding how the reasoning and conclusions of the Supreme Court in the *Turner* decisions[24] apply in the context of this proceeding.[25] In *Turner I*, the Supreme Court identified the First Amendment analysis applicable to the must carry requirements of the 1992 Cable Act – the intermediate level of scrutiny described in *United States* v. *O'Brien*, 391 U.S. 367 (1968). The Court also

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23 47 U.S.C. § 336(b).

24 Turner Broadcasting System, Inc. v. FCC, 117 S.Ct. 1174 (1997) *("Turner II");* Turner Broadcasting System, Inc. v. FCC, 512 U.S. 622 (1994) *("Turner I").*

25 *See Notice* at ¶ 15.

concluded that the interests Congress cited in connection with the must carry requirements are both content-neutral and substantial. The Court remanded for a determination of whether the *O'Brien* standards had in fact been satisfied. In *Turner II*, the Court concluded, based on evidence before Congress and additional evidence introduced in the district court, that the must carry requirements do serve the substantial interests identified by Congress and create only a minimal burden on cable.

The *Turner* decisions apply to the present rulemaking in several respects. *First*, and most fundamentally, the decisions establish that Sections 4 and 5 are lawful. Thus, the Commission is clearly bound to comply with the mandate of those provisions by implementing must carry requirements for any signal of a local television broadcast station, including both analog and digital signals.

Second, the *Turner* decisions provide guidance regarding how the Commission's application of must carry regulations to digital are likely to be evaluated by a court. Under *Turner I*, the intermediate level of First Amendment scrutiny will apply to these regulations. *Turner I* also makes clear that the governmental interests that Congress cited in support of must carry in 1992 – preserving the benefits of free, over-the-air local broadcast television, promoting the widespread dissemination of information from a multiplicity of sources, and promoting fair competition in the market for

television programming – are both content-neutral and substantial.[26] Each of these interests underlies requirements for cable carriage of digital signals as well as of analog signals. Moreover, the *Turner I* analysis plainly suggests that an additional governmental interest applicable to cable carriage requirements for digital broadcast signals – the interest in facilitating a rapid and orderly transition to digital broadcasting and an early return of broadcasters' analog spectrum – is also content-neutral and substantial.

Third, the Court held in *Turner II* that the cable carriage requirements of the 1992 Cable Act serve the governmental interests cited by Congress. If digital broadcast signals are to replace analog broadcast signals, as Congress and the Commission have mandated, the assurance of cable carriage of digital signals will become just as significant to the financial viability of free, over-the-air local broadcast television, to promoting a multiplicity of information sources, and to promoting fair competition as requiring cable carriage of analog signals has been.

Fourth, the record in *Turner II* established a number of points that continue to be relevant in this proceeding:[27]

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[26] As the Commission notes (*Notice* at ¶ 5), with respect to public television, Congress specifically sought to preserve a unique source of noncommercial, educational programming services.

[27] For this reason, the Commission should consider the record compiled in *Turner II* as before it for purposes of the present rulemaking.

(a) cable operators play a gatekeeper role and they have incentives to disadvantage broadcasters by denying or limiting carriage of broadcast signals;

(b) in the absence of must carry requirements, cable operators had denied carriage to broadcasters, particularly public television stations; and

(c) the denial of access to cable subscribers harmed broadcast stations financially; and

(d) the denial of access deprived the American public of the universal access to public television that Congress mandated, thereby depriving the public of a unique source of noncommercial programming.

Because digital broadcasting is still in its infancy, broadcasters cannot present the sort of evidence of cable abuses that was before Congress in 1992. The Commission should recognize, however, that the evidence of abuses involving carriage of analog signals strongly suggests that similar abuses will occur in connection with broadcasters' digital signals. Indeed, the potential for abuses is even greater in connection with digital. *See* pages 21-22 below.

Among other things, the Commission should consider in this proceeding the evidence that the public broadcaster intervenors submitted in *Turner II*.[28] In brief summary, this evidence showed:

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[28] For the Commission's convenience, the public broadcasters are lodging with the Secretary's office as Exhibit C several of their *Turner II* submissions. This includes a summary of evidence that was before Congress relating to public television must carry requirements; redacted versions of briefs filed by public broadcasters in the district court; public broadcasters' merits brief filed in the Supreme Court; declarations of David J. Brugger and Edward J. Coltman; and redacted declarations of Jonathan C. Abbott, M. Peter Downey and Richard Feldman and of various public television station managers.

- Cable operators have special incentives to deny carriage to public television stations, particularly because, consistent with their noncommercial mission, these stations present programming that is not aimed at mass audiences.[29]

- Cable operators in fact dropped substantial numbers of public television stations or shifted the channel positions of these stations during the years when must carry requirements were not in effect.[30]

- Denials of carriage and shifts in channel position of public television signals deprived the American public of unique noncommercial programs, including, *e.g.*, educational programming for school children and adult learning programs.[31]

- Public television stations have limited financial resources and are placed at risk by the financial effects of denial of cable carriage.[32]

- Carriage of public television stations imposes a minimal burden on cable operators.[33]

The bulk of this evidence is fully applicable to digital broadcast signals.

The Commission was a party to the *Turner* litigation and presumably has in its files copies of all materials from the record in that case.

[29] *See, e.g.,* Brugger Decl. ¶ 37; Public Broadcaster Defendant-Intervenors' Supplemental Statement of Evidence Before Congress ¶¶ 57-68. The Declaration of Roger Noll, submitted by the government, also discusses cable's incentives to deny carriage to public television.

[30] *See, e.g.,* Feldman Decl. ¶¶ 8-18; Brugger Decl. ¶¶ 13-24 & Atts. 4, 6.

[31] *See, e.g.*, Downey Decl. ¶¶ 8-16, 24-32; Brugger Decl. ¶¶ 5-9, 37; various declarations of station managers.

[32] *See, e.g.*, Abbott Decl. ¶¶ 4-37; Coltman Decl. ¶¶ 4-10.

[33] *See, e.g.*, Brugger Decl. ¶¶ 29-30; Public Broadcaster Defendant-Intervenors' Supplemental Statement of Evidence Before Congress ¶¶ 176-77, 181.

Exhibit D to these comments contains a more extensive summary of points from public television's *Turner II* submissions.

While the evidence on cable burden that was presented in *Turner II* may be somewhat outdated,[34] it is nevertheless relevant in the digital context because it suggests that the Commission must regard cable's predictions of burden with skepticism. In 1992, cable operators argued that they would have to displace many cable programmers in order to comply with must carry requirements. In fact, the *Turner II* evidence showed that only a small number of cable programmers had to be removed in order to accommodate broadcasters enforcing must carry rights and that many of these cable programmers were restored to carriage within a short period of time.[35] Despite cable's current predictions, it may well be that a similar pattern will develop in connection with carriage of digital signals. As shown in Part V below, this is particularly likely in the case of public television.

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[34] This is the result of more recent developments, including imposition on broadcasters of an obligation to transmit both analog and digital signals during the transition, technical differences between analog and digital broadcasting, recent changes in technology, the expansion of cable capacity in recent years, and cable's continuing plans for capacity expansion.

[35] *See, e.g.,* Turner Broadcasting v. FCC, 910 F. Supp. 734, 745-47 (D.D.C. 1995) (noting expansion in cable capacity and data indicating that only 1.2 percent of cable channel capacity was occupied by broadcast stations added as a result of must carry rules); Brief for the Federal Appellees, No. 95-992 (U.S. Sup. Ct.), p. 37 (noting that less than 6% of systems nationwide had to drop even a single cable program service to comply with must carry requirements and that within a few years capacity increases caused cable channels to expand by an amount 15 times the number of cable channels on which broadcast stations had gained carriage).

IV. THERE IS A SUBSTANTIAL NEED FOR CABLE CARRIAGE REQUIREMENTS FOR DIGITAL SIGNALS OF PUBLIC TELEVISION STATIONS.

It is clear that a requirement of cable carriage for public television stations' digital signals is needed and that requirement serves substantial governmental interests. As noted above, many of the points established in *Turner* regarding the need for must carry requirements apply as well to the carriage of digital signals as to the carriage of analog signals.

Public television stations' special need for cable carriage of digital signals is at least as strong as, if not stronger than, their need for carriage of analog signals in 1992, for several reasons. *First*, the mandate from Congress that all Americans have access to public television services applies to digital as well as analog programming services. As Congress emphasized when it enacted cable carriage requirements for public television in 1992, the American public should have unimpeded access to public television because they support it through their tax dollars and their individual contributions.[36] The same revenue sources will support public television's acquisition of digital facilities and its digital programming costs. If cable operators can prevent their subscribers from accessing public television's digital signals, Congress's goal of universal access to public television services will be defeated.

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[36] 1992 Cable Act, Section 2(8).

Second, public television stations continue to have limited financial resources. Over the next few years, public television's financial situation is likely to become even more precarious, due to the large expense of the digital conversion and the costs of operating both analog and digital facilities during the transition, as mandated by the Commission. Thus, denial of carriage of digital signals is likely to threaten public television stations' financial security even more than loss of analog signal carriage did in 1992.[37]

Third, cable operators' commercial motives continue to make them less inclined to carry noncommercial programming, which is aimed at unserved and underserved audiences, rather than at a mass audience. As in 1992, cable operators play a gatekeeper role with respect to broadcast signals, and they now have even greater incentives not to carry such signals. With more cable programmers and increased vertical integration in the cable industry,[38] the pressure to carry cable programmers, rather than broadcast

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[37] As shown in public television's evidentiary submissions in *Turner II*, many public television stations operate close to the margin. *See* Coltman Decl.¶¶ 7-8. The loss of contributions from cable subscribers who cannot access a public television station's signals can have a substantial effect on the station's ability to operate effectively. *See* Abbott Decl. ¶¶ 12-29. The impact is likely to be significant because the early converters to digital probably will be higher income individuals, many of whom have been generous supporters of public television.

[38] *See* Annual Assessment of the Status of Competition in Markets for the Delivery of Video Programming, Fourth Annual Report, CS Docket No. 97-141 (rel. Jan. 3, 1998), at ¶¶ 158-160.

signals, will be even greater.[39] In addition, advertising revenues are now a higher percentage of total cable revenues than they were in 1992.[40] Additional opportunities to earn revenue from carriage of cable programmers likewise will make carriage of noncommercial broadcast programming less attractive to cable operators.

The need for must carry protection for digital broadcast signals extends to the period of transition from analog to digital broadcasting. As explained above, cable carriage is crucial to the success of the transition, and public television stations will suffer significant injury if the transition is delayed. Moreover, if public television's new digital programming services are denied to cable subscribers during the transition, Congress's universal access mandate for public television will be frustrated. Public television may fail to secure a place in the digital television world, placing both its mission and its financial viability in great jeopardy.

There is no satisfactory alternative to providing must carry protection for public television stations' digital signals during the transition period. In the past, cable representatives have argued that carriage of digital

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[39] A recent study indicates that cable is devoting more than two-thirds of its new digital channels to premium and pay-per-view programming. In addition, it appears that the biggest beneficiaries of the digital expansion are services in which TCI's Liberty Media has an equity interest. *See The Pay TV Newsletter (PTN)* (No. 455) (September 25, 1998) (citing Paul Kagan Associates, Inc., Digital Tier Strategies, 1998).

[40] *See id.* at ¶ 23; Forkan, *Ad-Insertion Companies Branch Out,* Multichannel News, July 27, 1998.

broadcast signals during the transition should be left to voluntary negotiations, particularly retransmission consent negotiations. As the Commission recognizes (*Notice* at ¶¶ 32, 50), the retransmission consent provisions do not even apply to public television.[41] In any event, past experience has shown that public television stations cannot count on the voluntary agreement of cable operators to assure carriage. The Commission must move quickly and decisively to provide assurance that public television stations will be able to enforce must carry rights for their digital signals.

V. THE COMMISSION SHOULD PROMPTLY PROMULGATE RULES IMPLEMENTING CARRIAGE REQUIREMENTS FOR DIGITAL SIGNALS OF PUBLIC TELEVISION STATIONS DURING THE TRANSITION PERIOD.

To avoid uncertainty, and to comply with the mandate of Section 5, the Commission should proceed to promulgate must carry rules covering public television's digital signals as soon as possible. In fashioning such carriage requirements, the Commission should take account of the special circumstances of public television stations, including the distinct

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[41] While Congress in 1992 provided that commercial broadcasters could elect either retransmission consent or must carry protection, noncommercial broadcasters have only the latter option.

The *Notice* (at ¶ 50) asks whether the Commission should recommend that Congress provide retransmission consent and program exclusivity rights for public television stations. Public broadcasters have no objection to such a step. However, there is no assurance that a recommendation will be accepted; moreover, it is unlikely that acquiring such rights would give public television stations enough bargaining power to assure carriage of their digital signals.

statutory framework that governs carriage of public television signals. In the 1992 Cable Act, Congress provided separate carriage requirements for public television stations in Section 5, rather than combining them with commercial stations in Section 4. Among other things, Section 5 requires cable carriage of specified numbers of public television stations (limited according to the channel capacity of the cable system in question) and defines carriage eligibility with reference to criteria different from those applied to commercial stations. The Commission's implementing rules follow this framework, providing distinct treatment of public television.[42]

Most must carry regulation for public television digital signals should be essentially the same as the rules currently in place.[43] However, as the *Notice* suggests, it is appropriate to consider special provisions covering the period of transition from analog to digital broadcasting. The public broadcasters have therefore attempted to fashion a workable interim scheme that balances the relevant interests.

A. A Pragmatic Approach to Cable Carriage of Public Television Stations During the Transition Period

Public broadcasters recognize that application of the must carry statute to the transition period raises difficult issues. This is not surprising;

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[42] *See* 47 C.F.R. §§ 76.55-76.57.

[43] In later sections, we discuss a few respects in which the rules governing must carry for public television stations could be modified to take account of the special characteristics of digital signals.

the transition itself presents unusual difficulties for broadcasters. During the transition, broadcasters are required to bear heavy financial and operating burdens. This includes payment for expensive new transmission equipment and production of digital programming, as well as the substantial expense of operating both analog and digital facilities.

Broadcasters also face substantial risks in connection with the transition. Among other things, there is uncertainty about how digital technology will develop and whether and how quickly consumers will accept digital broadcasting. While broadcasters, like Congress and the Commission, want digital television to succeed, broadcasters alone cannot guarantee success.

Just as Congress and the Commission are imposing requirements on broadcasters to ensure that the transition will be successful, some provision for cable participation is needed in order to realize this goal. Because cable participation will be crucial to the digital transition, and in view of the substantial burden the transition will place on broadcasters, it is clearly reasonable for the cable industry to shoulder responsibilities during the transition. Indeed, it is more than reasonable for cable to contribute, because it will derive significant benefits from the transition. The introduction of digital broadcasting will help drive the acquisition of digital sets by cable viewers, thereby providing cable with a ready audience for its own digital services.

The public broadcasters urge the Commission to adopt the approach described below for cable carriage of public television stations during the transition period.[44] The approach is generally consistent with the requirements of Section 5, while taking into account the special circumstances of the transition period (including any potential hardship that individual cable systems may face). In order to eliminate uncertainty for public television and its viewers, rules reflecting the following approach should be put in place as soon as possible.

- The basic rule should require a cable operator to carry both the analog signals and the digital signals of public television stations that qualify under Section 5 of the 1992 Act.[45] The carriage obligation for digital signals should become effective as each qualified public television station begins broadcasting a digital signal, subject to applicable Section 5 requirements (*e.g.*, provision of a good quality signal to the cable headend).

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[44] The approach described below incorporates aspects of several of the transition proposals described in the *Notice*. Any transition rule must satisfy the public interest in widespread access to public television to the maximum extent possible. The Commission must fashion an approach that provides distinct protections for public television, taking into account its special circumstances, including its relatively late digital rollout deadline.

[45] There can be no question that cable systems must continue to carry the analog signals of qualified public television stations throughout the transition. The 1992 Act requires carriage of all signals broadcast by these stations. Moreover, the Commission has mandated the continued broadcast of analog signals through 2006, so that consumers who have not acquired digital receivers will continue to have access to broadcast television. *In re Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Fifth Report and Order, MM Docket 87-268 ("Fifth Report and Order"), 12 FCC Rcd 12809, 12850 (1997). There would be little point to this requirement if cable operators could refuse to carry these analog signals.

- An exemption/waiver process should be created to address hardship situations faced by individual cable systems during the first few years of the transition period.

    - Exemptions should not be routinely granted. Factors to be considered in deciding whether an exemption/waiver for an individual cable system is appropriate could include the size of the cable system, whether the system is affiliated with a larger cable operator, technical limitations on the system's ability to transmit digital broadcast signals, and unusual financial circumstances.

    - A cable system would not be entitled to an exemption/ waiver where it had unused channels as of or after July 10, 1998, or where it had added capacity since July 10, 1998.[46] Such systems would be expected to reserve room for digital signals of qualified public television stations (see below).

    - An exemption should be denied if the Commission finds that a cable system is delaying technical upgrades for anticompetitive or other inappropriate purposes.

- Provisions should be included to ensure that public television stations are not prejudiced due to a late digital rollout. The Commission could provide, for example, that any cable system with unused channels on or after July 10, 1998, or that adds capacity after July 10, 1998, must reserve slots for digital signals of public television stations that currently have analog carriage on that system, even if those stations have not yet begun to broadcast a digital signal.

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[46] Addition of cable capacity can take different forms, including an upgrade that increases bandwidth or introduction of digital compression. *See* pages 29-31 below.

The choice of July 10, 1998 in this provision is based on the issuance date of the *Notice*. Section 5 at several points ties obligations to earlier dates, in similar fashion. *See, e.g.*, 47 U.S.C. § 535(c) (cable carriage must be continued where signals were carried as of March 29, 1990); *id.* at § 535(g) (notice required for assignment to a channel different from that to which the station was assigned on March 29, 1990). These provisions reflect the date the legislation that eventually became Section 5 was introduced in Congress.

- The Commission could require that a public television station notify the cable operator of its digital broadcast plans in order to be eligible for reservation of a digital slot on a system.

- Cable operators would be free to use a reserved slot to carry cable programming during the period before the public television station began digital broadcast.

- At various points, the exemption/waiver process would be phased out, so that the Section 5 requirements ultimately become fully effective for digital signals.

    - For example, beginning in 2002, all cable systems with more than 10,000 subscribers could be required, without exception, to carry the digital signal of at least one qualified local public television station (or to reserve a slot for one such signal if none was yet being broadcast).

    - Between 2002 and 2006, the Section 5 requirements would be phased in further. By 2006, all cable systems would be required, without exception, to carry the digital signals of all local public television stations eligible for carriage under the 1992 Act.

For the Commission's convenience, this description of public broadcasters' recommended approach to cable carriage of public television stations during the transition period is reproduced in Exhibit F.

B. The Minimal Nature of Any Burden on Cable

Under the approach described above, carriage of public television signals during the transition period should entail only a minimal burden on cable.

First, cable operators have had substantial time to prepare for carriage of digital television signals. Over three years ago, the Commission's

Fourth NPRM provided cable operators with notice of the Commission's intent to promulgate must carry rules for digital signals for the transition period.[47] Before that, Congress put cable on notice that must carry rules would apply to digital signals when it gave the Commission authority to promulgate such rules in Section 4(b)(4)(B) of the 1992 Cable Act, discussed above. And, even earlier, cable was an active participant in the Advanced Television Test Center.[48]

Second, the cable industry will have substantial new capacity to accommodate public television stations' analog and digital signals during the transition period. For the last several years, cable systems have been increasing their total bandwidth capacity through system upgrades, and this process will continue in the coming years.[49] These upgrades have enabled

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[47] *See Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service*, Fourth Further Notice of Proposed Rulemaking and Third Notice of Inquiry, MM Docket 87-268 ("Fourth NPRM"), 10 FCC Rcd 10540 (1995).

[48] *See* Prepared Testimony of Joseph C. Collins, Chairman and Chief Executive Officer of Time Warner Cable, *Hearing Before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the House Committee on Commerce*, April 23, 1998 ("Collins Testimony") at 1 ("The evolution of digital television represents over a decade of incredibly complex technical work. During that period, I served on the Advanced Television Advisory Committee and, having participated in the development of high definition television, I am convinced that it is an exciting technology which is not only good for consumers but good for the cable industry and for Time Warner. Because of our commitment to digital television, we began several years ago to prepare for the transition to the digital era.").

[49] Collins Testimony at 2 ("[B]y the end of last year, we had already spent more than $2 billion on system upgrades affecting over 5.5 million

cable operators to expand the number of channels their systems can carry and to make their systems "digital ready."[50] In addition, the implementation of digital compression technology by many cable systems will allow these systems to vastly increase the number of programs they transmit.[51]

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subscribers and we expect 70% of our systems to be upgraded by the end of this year."). *See also* Cable Television Industry Overview, as of April 1998, www.ncta.com ("In 1997 cable system channel capacity increased to an average 53 channels. However, given that larger cable systems tend to offer more channels, the average cable customer received an average of 78 channels, an increase of 14.7% more channels than just one-year ago. By year end, the average cable customer is expected to receive 90 channels.") (citing Paul Kagan Associates, Inc., *Cable TV Programming*, Aug. 31, 1997).

[50] Prepared Testimony of Leo J. Hindery, Jr., President of Tele-Communications, Inc., *Hearing Before the Subcommittee on Telecommunications, Trade, and Consumer Protection of the House Committee on Commerce,* April 23, 1998 ("Hindery Testimony") at 2 ("All of the new businesses in which we are investing are predicated on the implementation of digital into our cable systems. We have developed a very cost-effective plan for rolling out digital to our systems."); Collins Testimony at 2 ("A key component of this transition is a five year $4 billion program, begun in 1996, to upgrade our cable systems to a 750 MHz, two-way plant. This hybrid fiber-coaxial architecture, which has become the standard for the telecommunications industry, will provide immediate benefits in the form of increased channel capacity and vastly improved picture and system reliability . . . The system rebuilds which I have just described will make our cable plant 'digital ready.'")

[51] Hindery Testimony at 2 ("What does digital mean for our customers? Let's look at the system here in D.C. where we recently implemented our digital package. The D.C. system is a typical 450 MHz TCI system. Prior to the digital upgrade, we offered 64 analog channels. The upgrade allowed us to designate three of those analog channels for digital services. Using sophisticated compression technology, we can now offer our customers an additional 36 cable programming services, including eight channels of pay-per-view, and 10 digital audio channels."). *See also The Pay TV Newsletter (PTN)* (No. 455) (September 25, 1998) (going digital nearly doubles the average system's capacity, from 61 to 118 video channels).

As the Commission recognizes in the *Notice*, one group of

Third, carriage of public television digital signals would require a relatively small amount of cable's total bandwidth capacity. The total number of such stations is relatively small,[52] and Section 5 by its terms limits the number of such stations that smaller cable systems must carry.[53] In fact, the actual number of public television stations carried by a cable system is typically quite small. The vast majority of U.S. cable systems -- over 9,000 -- report carrying either no public television stations or just one. Approximately 2,200 other cable systems carry just two public television stations, while fewer than 500 cable systems carry three or more.[54] Thus, the great majority of cable systems would be required to add only one, or at most two, public television digital signals during the transition period.

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commenters has pointed out that one 6 MHz digital cable channel will be able to carry the equivalent of at least eight digitally compressed NTSC channels or two HDTV signals or a compressed NTSC channel and four multicast SDTV channels. *See Notice* at ¶ 58. Developing technologies will allow cable to carry one 6MHz analog channel and two digital channels on one cable channel. This will add 4.5 megabits to each analog channel without jeopardizing the quality of the analog signal. *See* Ciciora, 4.5 Mbps Data Compatibly Transmitted in 6 MHz Analog Television (National Cable Television Association Technical Papers 1998).

[52] There are only approximately 350 public television stations in the entire United States.

[53] A cable system's obligation to carry local noncommercial educational television stations is based on the system's number of usable activated channels. For example, a cable system with 12 or fewer channels is required to carry only one public television station. *See* 47 U.S.C. § 535(b).

[54] *See* Exhibit E (Warren Publishing cable statistics).

Fourth, public television will have a gradual digital rollout. Based on data gathered by APTS and PBS regarding public television licensees' digital plans, only about one fourth of the licensees expect to begin digital broadcasting by the year 2000. More than half of public television licensees do not expect to begin digital transmissions until 2003.[55] By that time, the major cable systems, by their own account, should have implemented system upgrades and have more than enough bandwidth capacity to accommodate public television stations' digital transmissions without displacing any current cable programming.[56]

Fifth, the ability of cable systems to employ unused public, educational and governmental ("PEG") channels to carry the digital signals of public television stations further eases any burden on cable systems.[57]

Sixth, any real hardship cases can be addressed through the exemption/waiver process proposed above. While it is doubtful that there will be many true hardship cases, this safety valve ensures that no cable

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[55] *See* Exhibit B (data on the digital rollout timetables of public television licensees).

[56] *See* Collins Testimony at 2 ("Time Warner is on track to complete its company-wide upgrade program by the end of the year 2000."); Hindery Testimony at 3 ("[TCI has] already rolled out our digital package in 90 markets, and the service is now available to approximately 11 million customers.").

[57] The 1992 Cable Act makes it clear that, subject to the approval of the franchising authority, unused PEG channels may be used when public television stations are added to satisfy must carry requirements. 47 U.S.C. § 535(d).

system will suffer undue burden as a result of carrying public television digital signals during the transition period.

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The approach outlined above is a pragmatic one that strikes a reasonable balance between the requirements of Section 5 and the strong interest in providing cable subscribers with access to the full range of public television services, on the one hand, and the concerns about the potential burden on cable of carrying both analog and digital signals during the transition period, on the other. The approach is more consistent with congressional intent than the proposals referred to in the *Notice*, because it provides distinct protections tailored to the special situation of public television and because it ensures that cable subscribers will obtain access to digital signals of public television stations within a reasonable period of time.

VI. THE "SUBSTANTIAL DUPLICATION" PROVISIONS DO NOT APPLY TO CARRIAGE OF DIGITAL AND ANALOG SIGNALS BROADCAST BY THE SAME STATION.

The *Notice* (at ¶¶ 69-70) seeks comment on the significance in the digital context of the provisions of the 1992 Act relating to substantial duplication of signals. These provisions do not affect cable operators' obligation to carry both analog and digital signals of the same station.

The substantial duplication provisions of Section 5 state that a cable operator need not carry a signal of an "additional" qualified noncommercial station if the programming substantially duplicates the

programming of another qualified noncommercial station receiving carriage.[58] On their face, these provisions apply only to signals broadcast by different stations. In cases in which a single public television station is simulcasting programming on its analog channel and its digital channel, the cable operator would not be freed of the obligation to carry one of the signals, because the two signals are not being broadcast by different stations.

This result is consistent with the intent underlying the substantial duplication provisions. Congress intended these provisions to "promote access to distinctive public television services."[59] As described throughout these comments, and in more detail below, the digital viewing experience will be distinct from the analog viewing experience. With digital technologies, public television stations will be able to integrate data and images into their programming, using capabilities not available with analog technology. In addition, digital programming is transmitted in a completely different format than analog programming. Thus, even in the case of simulcasting, the analog and digital signals cannot be considered duplicative. Finally, public television's digital programs may target different audiences.[60]

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[58] 47 U.S.C. § 535(b)(3)(C), (e).

[59] H.R. Rep. No. 102-628, p. 100.

[60] *See In re Implementation of the Cable Television Consumer Protection and Competition Act of 1992 Broadcast Signal Carriage Issues*, 8 FCC Rcd 2965, 2971 (1993) ("[P]rograms in foreign languages (e.g. MacNeil/Lehrer in Spanish) are not duplicative of the same programs broadcast in English, as they target different audiences.").

For all of these reasons, the Commission should find that the transmission of analog and digital signals by the same station is not duplicative.

VII. A BROAD RANGE OF PUBLIC TELEVISION SERVICES MUST BE CARRIED.

In a digital environment, a much broader range of services can be carried over the air than in the analog environment. As described in Part I above, digital capability will allow public television to expand significantly its ability to fulfill its educational and public service mission. Cable carriage requirements should extend to the broad range of these mission-related services. This includes multiple streams of standard definition programming, as well as services that make use of data embedded in the bitstream.

Section 5 requires cable systems to carry the "primary video" of a qualified public television station.[61] This includes the full complement of over-the-air mission-related programming, whether analog or digital, that local public television stations intend their audiences to receive.[62] In the digital context, the "primary video" includes multiple streams of standard definition programming.

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[61] Section 5(g)(1) requires carriage, "in its entirety," of "the primary video, accompanying audio and line 21 closed caption transmission" of noncommercial stations and, if technically feasible, carriage of program-related material carried on the VBI or subcarriers of noncommercial stations "that may be necessary for receipt of programming by handicapped persons or for educational or language purposes." 47 U.S.C. § 535(g)(1).

[62] There is no indication, in either the statutory language or the legislative history, that "primary video" refers only to the analog signal.

Congress attached no restriction to the "primary video" definition, even though the Commission had noted the possibility of multiple digital programming streams at the time the must carry provisions were enacted.[63] Where a public television station broadcasts several streams of digital programming, each aimed at a different audience, as well as analog programming for those viewers who have analog receivers, no single one of these programming streams can be regarded as "primary;" all are "primary."

Anything less than carriage of all mission-related programming streams would run counter to the policies underlying Section 5. Congress concluded that the government "has a substantial interest in making all nonduplicative local public television services available on cable systems" because, among other things, the educational and informational programming provided by public television advances the government's "compelling interest in educating its citizens."[64] The ability to offer multiple streams of programming will increase the opportunities for public television to bring high

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[63] *See* Third Report and Order, Third Further Notice of Proposed Rule-making, Memorandum Opinion & Order, MM Docket No. 87-268, 7 FCC Rcd 6924, 6967 (1992) ("We . . . intend to consider authorization of other advanced video applications, including future techniques that might provide for transmission of more than one ATV program service on a single conversion channel, so long as they are compatible with the ATV system we select. Such a development would be of potentially great significance to broadcasters' ability to compete in a multichannel environment.").

[64] 1992 Cable Act, Section 2(a)(8).

quality educational programming to the American public.[65] Thus, the public policy rationale for carriage requirements supports carriage, during the transition period and beyond, of all the mission-related programming streams broadcast by public television stations.

Moreover, the concept of "primary video" must be redefined in the context of digital broadcasting. As described in Part I above, public television's plan for digital operations envisions a broad range of educational and mission-related services. Of course, digital capability will help public television to improve its traditional services to the physically challenged, including closed captioning and descriptive video, and all of these enhanced services will clearly be subject to cable carriage requirements.[66] But digital

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[65] As explained in Part I.A. above, with the multicasting capability public television stations could air several programs at once, thereby serving different audiences at the same time. For example, a station could have a children's channel, an adult learning channel, and a channel geared to a minority audience.

[66] The 1992 Cable Act requires carriage "in its entirety" of "accompanying audio, and line 21 closed caption transmission" of public television stations. 47 U.S.C. § 535(g)(1). It also requires carriage, where technically feasible, of materials carried in the vertical blanking interval or on subcarriers that are necessary for receipt of programming by disabled persons. *Id.* In the digital environment, closed captioning is no longer carried on line 21, and there is no VBI. The complete closed-caption and video-description transmissions and similar services will be carried as part of the digital bitstream, and cable carriage of these services will be technically feasible. The requirement of cable carriage for digital signals plainly extends to all services that are necessary for receipt and understanding of programming by people with disabilities. Indeed, it is essential that these "lifeline" services be carried intact and that their transmission be monitored and delivered in a form readily displayable according to industry standards.

technology will allow public television to do much more. Among other things, public television intends to use digital capability to integrate video-based programs with data and images that will create entirely new, extremely powerful educational applications for services from preschool programs, to distance learning, to public television's signature programming.

For example, PBS plans to present a documentary on Frank Lloyd Wright this fall. Eventually, in a digital environment, viewers could explore photographs, blueprints, and images of buildings that Mr. Wright designed, in addition to the basic content contained in the video program. [67] Viewers could also review longer, more in-depth versions of interviews conducted for the documentary but edited out of the scheduled program due to time limitations. This data, which will be embedded in the broadcast signal, will allow the viewer to follow his or her own individual interests, as sparked by the program.[68]

Digital technology also will allow public television to enhance its children's programming significantly. With digital capabilities, public

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[67] PBS will begin testing this concept with focus groups this fall.

[68] Public television provides a wide range of performing arts and cultural programming, including, for example, concerts and plays from Lincoln Center in New York and country music performances from Austin, Texas. The ability to transmit data over the air through digital technology will allow transmission of a much broader range of program material, including educational information concerning the performers and the music, theater or other art form presented and schedules and ticketing information for cultural events.

television will be able to transmit interactive material that children and their parents can access before, during, or after a program. For example, in shows such as *Arthur* or *Sesame Street*, public television will be able to integrate stories, games, and/or lessons into the programs, allowing children to apply the skills and knowledge taught in the programs, or reinforcing a particular theme of a program.[69] These features will increase the educational value of children's programming and will provide schools, libraries, day care centers and homes, whether in big cities or small towns, with access to the most innovative learning tools available.

In addition, the ability to transmit data through digital technology will provide public television with a powerful instructional tool. For example, public television stations could transmit course-related materials, such as lesson plans and teacher and student guides, as part of their instructional programming.[70] The distance learning courses in

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[69] Public television currently carries "Parent Tips" on the VBI of children's shows, such as *Barney, Mister Rogers, Sesame Street* and *Reading Rainbow*. These tips help parents reinforce the lessons taught during the program. In the digital environment, public television will be able to expand these types of educational services. Public television also carries information in the horizontal overscan that prompts Barney, Arthur, DW, and other dolls and products to interact with the television program and the children viewing it.

[70] For example, in the digital environment, PBS will be able to offer instructional materials before, during, or after the transmission of its Ready to Learn programs. Currently, students, parents and teachers must obtain a hard copy of such materials separately. The ability to transmit materials with the broadcast signal undoubtedly will make the instructional materials more

advanced subjects, now offered to high school and university students via public television in several states, could be significantly improved by providing similar types of instructional data along with the programming.

Further, public television stations could deliver selected portions of the Internet directly to a viewer's television set without the need for a computer, telephone connection, or access provider.[71] This service could include websites related to public television programming, such as *NOVA, FRONTLINE, Nature, Arthur, The Living Edens*, and *The Democracy Project* or other related Internet content. This information would be an additional source of educational material that could benefit students and the general public. Moreover, by using public television as a gateway, parents could ensure that their children have a wholesome experience when they use the Internet.

Cable carriage of these types of educational services is not a new concept. Congress contemplated that cable would carry similar types of public television material when it provided in 1992 that, where technically feasible, cable must carry "program-related material" carried on public

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readily available and thereby more useful for children and parents using the Ready to Learn service. In addition, public television could adapt and extend PBS Mathline and Scienceline, year-long professional development services that use video and online techniques to help teachers improve their instructional practices based on national educational standards.

[71] Some public television stations are already providing the PBS Kids! website on the VBI.

television stations' VBI or subcarriers for "educational . . . purposes."[72] In explaining this provision, the House committee report referred to "lesson plans and other data on the VBI to accompany the educational programming delivered to the nation's schools."[73] In the digital environment, such data will not be delivered through a VBI but instead will be delivered as part of the bitstream that carries the video programming.

Requiring cable carriage of the full range of services related to public television's educational and public service mission will further Congress's goal of ensuring the distribution of unique noncommercial, educational programming to audiences in every part of the United States.[74] It is also consistent with Congress's determination that "it is in the public interest for the Federal Government to ensure that all citizens of the United States have access to public telecommunication services through all appropriate available telecommunications distribution technologies,"[75] as well as with Congress's explicit intention "to encourage the growth and development of nonbroadcast telecommunications technologies for the delivery of public telecommunications services."[76]

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72 47 U.S.C. § 535(g)(1).

73 H.R. Rep. No. 628, p. 101.

74 *See* 1992 Cable Act, Section 2(a)(7).

75 Public Telecommunications Facilities Act of 1992, 47 U.S.C. § 396(a)(9).

76 47 U.S.C. § 396(a)(2).

The fact that the services described above go beyond traditional forms of video programming does not remove them from the basic must carry obligation. Congress and the Commission mandated a digital conversion in large part because of the many improvements digital offers over analog.[77] Clearly, Congress could not have intended that, following the conversion, two-thirds of television viewers could be denied access to the new services that made digital so attractive in the first place.[78] The Commission should therefore make clear that all of public television's mission-related services must be carried.

VIII. THE TERM "ANCILLARY OR SUPPLEMENTARY SERVICE" MUST BE DEFINED NARROWLY FOR PUBLIC TELEVISION STATIONS.

Congress in 1996 explicitly excluded from cable's carriage requirements any "ancillary or supplementary service" offered by a

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[77] *See, e.g.*, Fifth Report and Order, 12 FCC Rcd at 12811 (outlining benefits of digital technology).

[78] Even in the analog environment, the Commission has recognized that cable carriage requirements are broad enough to accommodate new broadcast services. In determining what material carried on a station's VBI is "program-related" and therefore must be carried by cable where technically feasible, the Commission has stressed the need to be flexible. *See In the Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Broadcast Signal Carriage Issues,* Report & Order, 8 FCC Rcd 2965, 2986 (1993) ("Carriage of information in a station's VBI is rapidly evolving; thus, we believe no hard and fast definition [of program-related] can now be developed."); *see also In the Matter of Implementation of the Cable Television Consumer Protection and Competition Act of 1992, Broadcast Signal Carriage Issues,* Memorandum Opinion & Order, 9 FCC Rcd 6723, 6732 (1994) ("the factors set forth in [*WGN Continental Broadcasting Co.* v. *United Video Inc.*, 693 F.2d 622 (7th Cir. 1982)] do not necessarily form the exclusive basis for determining program-relatedness.").

broadcaster on its excess digital spectrum.[79] When used in connection with public television, the term "ancillary or supplementary service" should be defined narrowly, so that all of public television's services that are offered for educational, mission-related purposes are subject to mandatory cable carriage.

The statute does not define the term "ancillary or supplementary service," and the legislative history of the provision in question is sparse. However, when the provision is read in conjunction with Section 5 and the policies underlying the Communications Act, it is clear that public television's educational, mission-related services must fall outside the "ancillary or supplementary" category. These services will in no way be "ancillary" or "supplementary" to public television's activities; rather, they will be central to its mission.

As described in the preceding section, digital capability will allow public television to offer a host of new services. All of these services are integral to public television's longstanding congressionally-mandated mission to educate American citizens. While many of the services may be new, in the sense that they could not be delivered (or at least could not be delivered as effectively) by television before digital broadcasting, they will clearly be part of public television's core educational activities.

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[79] 47 U.S.C. § 336(b).

When defining carriage obligations, it is both consistent with congressional intent and in the public interest to include the full range of educational and mission-related services that digital technology will allow public television stations to offer. The Commission should make clear that public television's educational, mission-related digital services are not "ancillary" and are subject to must carry requirements.[80]

IX. THE PROHIBITION AGAINST MATERIAL DEGRADATION MUST BE ENFORCED IN THE DIGITAL ENVIRONMENT.

The principle of no material degradation[81] must be enforced in connection with carriage of digital signals. In particular, cable should be required to carry the full bitstream provided by broadcasters.

In the *Notice*, the Commission seeks comment on whether cable should be permitted to demodulate digital broadcast signals.[82] Public broadcasters do not oppose demodulation in those limited instances in which a cable operator seeks to transform the digital signal into a higher bit-rate package in order to utilize the cable system's network capacity more efficiently. However, the rule should prohibit cable operators from removing

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[80] In limited instances, a public television station may charge a fee in order to recover costs associated with a particular mission-related service. Such fees, which would be used to support public television's non-profit activities, should not cause the service to be regarded as "ancillary."

[81] Section 5 provides that "[a] cable operator . . . shall carry the signal of each qualified local noncommercial educational television station without material degradation." 47 U.S.C. § 535(g)(2).

[82] *Notice* at ¶ 66.

any bits from a broadcaster's signals in this process. When the digital signal reaches the viewer, it should contain all the bits in the proper order, as transmitted by the broadcaster.

In view of Congress's mandate that all citizens of the United States have access to public telecommunications services, many public television licensees may be willing to agree that a cable operator may downconvert their digital signals when necessary to enable cable subscribers with analog sets to receive public television's programming.[83] Cable operators should be required to obtain the consent of the broadcaster before downconverting digital signals. Moreover, the Commission should craft protections that will prevent cable operators from discriminating against broadcasters' signals. At a minimum, consistent with the Communications Act, cable systems that have digital capability – in whole or in part – should be required to treat broadcasters' digital signals in the same way they treat cable digital programming.

X. PUBLIC TELEVISION STATIONS' DIGITAL SIGNALS MUST BE PLACED ON A BASIC TIER.

Section 5 requires that public television stations' signals be placed on a cable system's basic tier.[84] That requirement applies equally to

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83 *See id.* at ¶ 68, n. 138.

84 Section 5(h) provides that noncommercial educational stations entitled to carriage shall be "available to every subscriber as part of the cable system's lowest priced service tier that includes the retransmission of local commercial television broadcast signals." 47 U.S.C. § 535(h). In practice,

digital signals. Whether the format be analog or digital, the policy underlying the basic tier requirement remains the same: access to public television's services without any charge beyond the basic cable fee. The Commission's rules should preclude cable operators from charging extra for access to public television, regardless of the form of the signal.

The *Notice* asks whether digital broadcast signals could be carried on a special digital tier, so that only those subscribers with digital receivers would receive those signals.[85] Public broadcasters believe that it would be inconsistent with Section 5 and the goal of universal access to public television's services for public television stations to be placed on any digital tier that is a premium service for which cable subscribers must pay an extra charge.[86]

XI. PUBLIC TELEVISION STATIONS MUST RETAIN CHANNEL IDENTITY.

In the digital world, as in the analog environment, public broadcasters' retention of channel identity is critical to their retention of viewers. Although the capacity of many cable systems will increase dramatically with the deployment of digital technologies, competitive

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all local broadcast stations are carried on the basic tier of cable systems.

[85] *Notice* at ¶ 76.

[86] Public broadcasters understand that some cable operators are discussing the possibility of designating a digital tier as a premium service. The Commission should require that, in addition to any premium digital tier, there be a basic digital tier that would carry at least local digital broadcast signals and that would not carry any surcharge.

interests still may motivate cable operators to bury public television's digital channels in undesirable locations on the program menu.[87] Thus, there must be a mechanism by which public television stations can maintain their identity over time and across the carriers of their signals and by which the public can easily find noncommercial programming easily. In addition, the cable operator should be required to treat public television stations in the same manner as its other program suppliers in terms of mapping, displaying and otherwise arranging the programming for ease of navigation.

Public television endorses the position taken by the Advanced Television Systems Committee, under which a station's digital channel position will be transparent to the viewer, regardless of the frequency on which the channel is carried or the cable channel on which it is carried.[88] The standard adopted in the ATSC Protocol will prove least confusing for a public that is trying to find its way through a thicket of new channels. It also should not pose undue hardship for cable systems.

In light of the recommendations outlined in the ATSC Protocol, public broadcasters believe the Commission should refrain from promulgating

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[87] The threat of such behavior was one of the reasons Congress saw a need for must carry requirements. Specifically, Congress found that "there is an economic incentive for cable systems to terminate the retransmission of the broadcast signal, refuse to carry new signals, or reposition a broadcast signal to a disadvantageous channel position." 1992 Cable Act, Section 2(a)(15).

[88] *See Program and System Information Protocol for Terrestrial Broadcast and Cable*, ATSC Document A/65 (Dec. 23, 1997) ("ATSC Protocol").

digital channel positioning requirements and allow the approach developed by ATSC to be implemented. In a few years, after more stations are transmitting in digital format, the Commission should revisit the channel positioning issue to ensure that cable operators are not engaging in anticompetitive practices.[89]

XII. OTHER ISSUES

A. A/B Switch and Antennas

The *Notice* suggests that the A/B switch and over-the-air reception via antennas might provide a satisfactory substitute for must carry requirements in view of developments since 1992.[90] For a variety of reasons, public broadcasters do not believe that A/B switches and antennas eliminate the need for must carry requirements.[91] A number of television receivers in use today do not have built-in A/B switches. Viewers using these receivers must use an external switch, which has not been successful in the past. Even receivers that incorporate an A/B switch may be difficult for the average viewer to operate. Moreover, receiving signals off-air requires viewers to purchase, install and maintain antennas, in some cases a daunting task. Preliminary testing has shown that reception of digital signals

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89 Of course, the Commission should review the issue at an earlier time if abuses are reported prior to the scheduled review date.

90 *Notice* at ¶¶ 16, 88.

91 Moreover, the Commission lacks authority to require cable operators to provide A/B switches. *See* 47 U.S.C. § 534(e).

often requires directional antennas with rotors, presenting yet another impediment to consumer use. Furthermore, for over 30 years, the cable industry has successfully encouraged consumers to rely solely on the cable connection. It is unrealistic to expect that consumers will readily change this longstanding pattern of behavior.

We assume that other broadcasters will address this subject at length, and therefore these comments will not attempt to do so. However, in considering these issues, the Commission should be aware of at least one special problem that will cause public television to be particularly dependent on cable for transmission of digital signals. Early indications are that digital television signals are vulnerable to various problems, including misaligned receive antennas. The transmitters of many public television stations, particularly those operated by state networks and university licensees, are located apart from a cluster of commercial station transmitters. Thus, even if they overcome the hurdles described above, cable subscribers forced to use antennas to attempt to receive broadcast signals over-the-air will point their antennas toward clusters of transmitters, thereby obtaining the best reception for the greatest number of stations, but causing the local public television station to be "off-beam." As a result, many cable subscribers may be unable to receive their local public television station over the air.

B. Digital Compatibility

It is, of course, crucial that there be compatibility between broadcasters' digital signals and cable systems, so that cable subscribers are able to receive digital broadcast programming. Because we assume that other broadcasters will discuss these issues at length in their comments, we will not address them here.

In taking this approach, we do not minimize the importance of the technical compatibility issues raised in the *Notice*. If voluntary industry negotiations do not produce an expeditious and satisfactory resolution of these issues, public broadcasters strongly urge that the Commission step in to impose such a resolution. If the compatibility issues are not resolved soon, the future of the digital conversion will be seriously jeopardized.

C. Miscellaneous Section 5 Issues

Public broadcasters have reviewed Section 5 to determine whether there are provisions or terms that require reinterpretation in the digital context.

One term that may require some clarification in the digital context is "usable activated channels" of a cable system, used in defining the category of a cable system for purposes of determining how many public

television stations must be carried.[92] This term is also used in Section 4. The Commission rules should reflect the fact that, with digital technology, more than one programming channel will fit into the standard 6MHz bandwidth.[93] Any redefinition should be applicable to both Sections 4 and 5.

Another provision that may require clarification is the portion of the definition of "qualified local noncommercial educational television station" that refers to the "Grade B service contour" of a public television station seeking carriage.[94] During the digital transition, this provision should be read to refer to a station for which either the Grade B service contour of the station or its digital coverage contour, whichever is larger, encompasses the principal headend of the cable system on which the station seeks carriage.[95]

D. Costs of Carriage

The Commission asks whether the equipment cable systems need to deliver digital broadcast television to subscribers should be paid for

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92 47 U.S.C. §535(b)(2)(A), (3)(A), (D); 47 C.F.R. § 76.5(oo).

93 *See Notice* at ¶ 58 and pages 30-31 & note 51 above.

94 47 U.S.C. § 535(l)(2)(B).

95 This would be consistent with the Commission's approach to defining service area coverage under other digital television rules. *See* Public Notice, Additional Application Processing Guidelines for Digital Television (rel. Aug. 10, 1998) (protecting stations from new DTV interference based on NTSC or DTV service populations, whichever is larger); Sixth Report & Order, In re Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, MM Docket 87-268, 12 FCC Rcd 14588, 14596 (1997) (adopting a service replication approach for DTV allotments that "allow[s] all existing broadcasters to provide DTV service to a geographic area that is comparable to their existing NTSC service area").

by broadcasters.[96] There is clearly no basis for such a requirement, which is barred by the must carry statute itself.[97] Moreover, cable operators presumably will be purchasing such equipment even in the absence of must carry requirements. Cable operators will want to carry selected digital broadcast signals at some point, certainly by the time broadcasters are required to return their analog spectrum. Even a cable system that prefers not to carry most digital broadcast signals will undoubtedly want to carry digital signals of the major networks. Because cable systems will eventually be developing digital capability for this purpose, there is no basis for imposing the costs of such development on smaller broadcasters.

Imposing cable's digital conversion costs on broadcasters would be particularly inappropriate in the case of public television stations. Such stations have limited financial resources in the best of times. In the coming years, public television's limited resources will be strained, as stations stretch to support the substantial expense of their own digital conversions. Most stations would be unable to afford the cost if public television stations, as a condition of carriage, were forced also to pay for adaptation costs incurred by cable such equipment even in the absence of must carry requirements. Cable operators will want to carry selected digital broadcast

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96 *Notice* at ¶ 93.

97 *See* 47 U.S.C. § 535(i)(1). Broadcasters will continue to bear the cost of delivering a good quality signal to the cable operator in the digital environment.

signals at some point, certainly by the time broadcasters are required to return their analog spectrum. Even a cable system that prefers not to carry most digital broadcast signals will undoubtedly want to carry digital signals of the major networks. Because cable systems will eventually be developing digital capability for this purpose, there is no basis for imposing the costs of such development on smaller broadcasters.

Imposing cable's digital conversion costs on broadcasters would be particularly inappropriate in the case of public television stations. Such stations have limited financial resources in the best of times. In the coming years, public television's limited resources will be strained, as stations stretch to support the substantial expense of their own digital conversions. Most stations would be unable to afford the cost if public television stations, as a condition of carriage, were forced also to pay for adaptation costs incurred by cable operators.

E. Compliance and Enforcement

The current must carry complaint and enforcement process should be available in connection with cable carriage of digital broadcast signals. This important mechanism has allowed public television stations to enforce their statutory carriage rights in dozens of instances. Between January 1993 and January 1995, public television stations filed approximately 170 formal carriage requests with the Commission. The stations were successful in almost 80 percent of these cases.

In general, the current complaint process appears to have functioned reasonably well. It is important that the process remain simple and that the cable operator be required to bear most of the burden of producing evidence.[98] In addition, the Commission should ensure that it adheres to the statutory 120-day deadline for acting on complaints. Even under that deadline, a cable operator can wrongly deny carriage for many months before effective relief is granted.

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[98] Some public television stations lack the resources to pursue even the current complaint process when they are wrongly denied carriage.

CONCLUSION

The Commission should act promptly to promulgate rules implementing cable carriage requirements for the digital signals of public television stations, as described above.

Respectfully submitted,

Marilyn Mohrman-Gillis
Lonna M. Thompson
Association of America's Public
Television Stations
1350 Connecticut Avenue, N.W.
Suite 200
Washington, D.C. 20036
202-887-1700

Kathleen Cox mm-6
Kathleen Cox
Robert M. Winteringham
Corporation for Public Broadcasting
901 E Street, N.W.
Third Floor
Washington, D.C. 20004
202-879-9600

Gregory Ferenbach mm 6
Gregory Ferenbach
Patricia DiRuggiero
Public Broadcasting Service
1320 Braddock Place
Alexandria, Virginia 22314
703-739-5000

October 13, 1998

EXHIBIT A

Public Broadcasting

Digital Transition Plans

(Excerpt)

SUMMARY OF PUBLIC BROADCASTING'S SUBMISSION TO OMB IN SUPPORT OF FEDERAL FUNDING FOR THE DIGITAL TRANSITION

Telecommunications in the United States and abroad are in the midst of a revolution, driven by rapid advances in digital technology. These far reaching changes are already forcing us to redefine traditional concepts such as "broadcaster" and "program," and are requiring entire industries — telephones and computers, as well as radio and television — to position themselves for the digital future. At this critical juncture, there is a unique opportunity for a national investment in Public Broadcasting to ensure that the educational needs of the American public are met through the use of digital technology.

For 30 years, Public Broadcasting has utilized the most current technology to ensure that learners of all ages and abilities, and from every socioeconomic level and geographic location, have access to the highest quality, noncommercial educational and cultural programming. Public Broadcasting has always been a pioneer in the use of technology to serve the public interest, and we stand ready to harness the forces of digital technology to continue to educate, enlighten and inform our nation's citizens.

This coming transition to digital broadcast technology stands to revolutionize how we accomplish our core mission. It will greatly affect each station and all the national organizations. In anticipation of this revolution, Public Broadcasting has undertaken a comprehensive planning process to shape our digital future. This process was guided by the Digital Broadcasting Strategic Planning Steering Committee (Digital Steering Committee) composed of representatives of the four national organizations, APTS, PBS, CPB and NPR, as well as station representatives involved in digital technology.

Public Broadcasting proposes a public/private partnership with the federal government to uphold universal access to quality public service programming in the digital age.

Digital technology is not a frill, but a technological imperative. The FCC's mandate that all stations convert to digital programming by 2003 imposes a tremendous financial burden on virtually all public broadcast stations. Public Broadcasting estimates the initial infrastructure investment required to make the transition to digital technology at $1.7 billion.

Unlike commercial broadcasters, public broadcasters are nonprofit or state or local government entities that rely on a grassroots funding structure. Because of these structures, stations are constrained in their ability to finance such a major capital expenditure. The cost of the digital transition will force many stations to either relinquish their digital license or divert already scarce funds from programming and operating budgets.

Some would ask why a renewed government commitment to Public Broadcasting is necessary in the digital age, which promises an unprecedented capability for expansion of commercial channels. The answer is simple. Public Broadcasting is the only entity that can assure that all Americans can have access to high quality educational and cultural resources. The federal government's 30-year history of support for Public Broadcasting recognizes the fundamental tenet: the commercial marketplace cannot be relied upon to provide high quality, noncommercial educational services in the public interest. By investing in Public Broadcasting's transition to digital technology, the federal government can ensure that this revolutionary technology is used to advance the nation's goals of educating the American public.

Public Broadcasting is well positioned to harness the forces of new technology to meet the nation's educational goals.

Digital technology will allow Public Broadcasting to offer all Americans a greatly expanded, interactive and richly detailed world of learning. Through a rigorous analysis, we identified a range of services most appropriate for Public Broadcasting to provide in a digital age. We focused on the needs that are not met or inadequately met in the commercial marketplace, and services that Public Broadcasting is well positioned to provide to meet those needs. We grouped the most compelling services into four major categories and put forward a number of ambitious goals in each category.

Goal: All American children, parents and caregivers will have access to the full complement of the Ready to Learn service.

Public Broadcasting's "Ready to Learn" programming and outreach services are designed to assure school readiness and success for children, particularly ages 2-6. Digital technology's multicasting capability will allow Public Broadcasting to make a more customized and robust Ready to Learn service available to all children, parents and caregivers.

Goal: Technology should be effectively integrated into K-12 education.

Public Broadcasting has a long and successful track record using the latest technologies to provide K-12 educational programs. Approximately 30 million students and 2 million teachers in 70,000 schools are served by public television. Digital technology will allow Public Broadcasting to make these services universally available to all schools and to enhance their value through the integration of video-based programs with online and broadcast data.

Goal: All Americans should have access to lifelong learning resources.

Today, Public Television is the largest source of telecourses in the nation. PBS' Adult Learning Service provides more than 70 accredited telecourses to 400,000 post-secondary students annually. This does not include the hundreds of telecourses, reaching millions of adult learners, offered annually by individual public television stations. Digital technology will allow Public Broadcasting to increase the reach of its post-secondary telecourses so they are universally available to all adult learners.

Goal: All Americans should have access to public service programming.

Public Broadcasting is, and always has been, committed to serving the unserved and underserved populations in our country: those who because of economic, geographic, physical, cultural or language barriers have been left behind by the commercial marketplace. With digital technology, Public Broadcasting can expand and enhance its commitment to serve these populations and ensure that educational digital programming and services are available to all Americans.

The federal government is a necessary partner for the digital transition.

Public Broadcasting must continue its technological leadership in digital broadcasting and preserve the universal reach provided by its stations. Public Broadcasting's transition to digital broadcasting will require an initial investment of more than $1.7 billion.[1] The cost estimates were developed using PBS cost analysis, a survey of the entire public television system, and an analysis of the best radio data available. The breakdown of these costs is shown in the table below.

Transition Costs
($ millions)

Category	Cost
Basic transmission package	$575
Master Control	252
Production equipment	498
DTV Operation	339
Radio	50
Grand Total	$1,715

[1] Because of the difficulty in measurement, this figure does not include the increased costs associated with program acquisition in a digital environment: the costs of producing programs in high definition, increased costs to acquire multicast programming, and additional costs required to enrich or add data to programs. On behalf of the Digital Steering Committee, CPB has requested an increase of $100 million (for a total of $400 million) in its appropriation for FY 2001 as a first step in addressing the increased program costs.

Our approach to this financial hurdle is designed to preserve the federal government's historic role as a crucial partner with us. We therefore requested that the President include 45 percent of the $1.7 billion transition cost, or $771 million in the FY 1999 budget. We estimate that we will outlay the funds over a three-year period; 50 percent in FY 1999, 30 percent in FY 2000, and 20 percent in FY 2001. Public Broadcasting arrived at the $771 million request by dividing the cost of the transition by one-half to reflect a local match of 50 percent, and further subtracting 10 percent to reflect cost efficiencies and savings we anticipate from the transition.

Public Broadcasting will match the federal funding through a combination of individual contributions, corporate underwriting, state funding, and foundation grants. In addition, Public Broadcasting plans to convert the many challenges of the digital transition into opportunities to achieve efficiencies and potential cost savings. Potential efficiencies, that many stations have already begun to explore, include, but are not limited to:

- group purchase discounts with appropriate equipment vendors;
- collaborative arrangements with both public and commercial broadcasters;
- collaborative arrangements with private sector partners; and
- streamlining operations.

While it is difficult to predict whether and to what extent Public Broadcasting will fully realize such efficiencies, we anticipate achieving a net cost savings of 10 percent.

It has been well established by both Congress and successive Administrations that universal access to public service programming is an important and desirable goal. According to a recent Roper poll, the American public believes that among 20 services supported by the federal government, public radio and public television are the second and third best values in return for tax dollars spent. With our 30-year record as a leader in education and technology, we look forward with anticipation to continuing our service to the American people in the digital age.

Potential Educational Benefits of the Digital Transition

The table below represents an educational case that can be made for funding the digital transition. It is recognized, however, that there are other cases that can be made based on community service, public access, local government coverage, or other ideals.

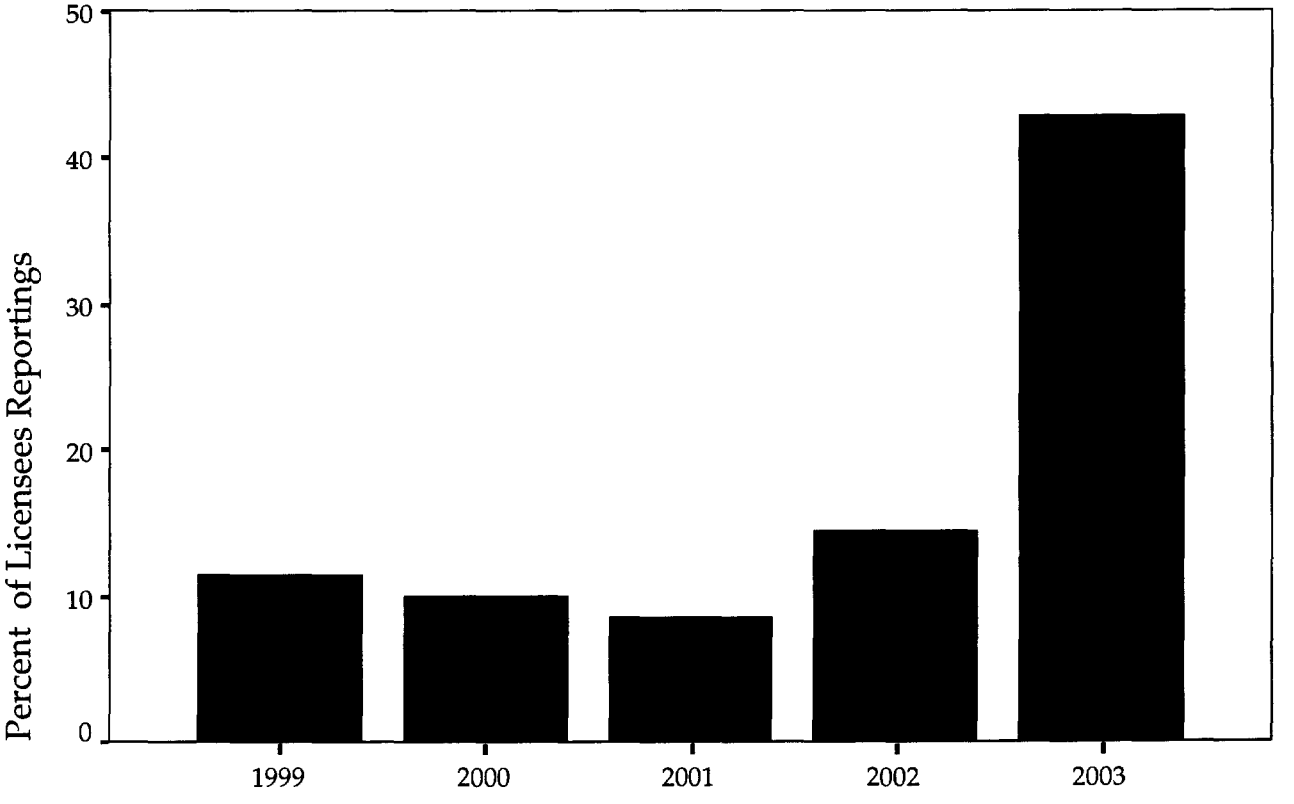
Educational Goals	Public Broadcasting Expertise and Track Record	Benefits of the Conversion to Digital Technology
All American children will begin school ready to learn by the year 2000.	-Public Broadcasting's "Ready to Learn" programming and outreach service is already assuring school readiness and success for children, particularly for ages 2-6. -Participating stations broadcast PBS children's series each day and work with community organizations, social service agencies, and day care providers to train parents, educators, and child care providers how to use Public Television to create an educational environment in the home. -Currently, 120 participating stations cover 88% of the country, and over the past three years public television stations have trained 44,000 parents and 74,000 teachers and caregivers, affecting over 50 million children.	1. Multicasting will allow stations to carry the full complement of "Ready to Learn" programming. 2. Digital television will allow stations to provide more training to parents, educators and child care providers in a more efficient and cost-effective manner. 3. Data delivery capabilities will enhance the quality of "Ready to Learn" and make it possible to customize the service.
Technology should be effectively integrated into K-12 education.	-Public Broadcasting has already integrated technology effectively into K-12 learning environments. -Approximately 30 million students and 2 million teachers in 70,000 schools are served by Public Broadcasting. -Public Broadcasting has pioneered the use of technology to deliver teacher training through groundbreaking programs such as PBS-MATHLINE.	4. Multiplexing will allow additional stations to provide K-12 services to more students. 5. Digital technology will enhance the value of these services by allowing for the integration of video-based programs with online and broadcast data.
All Americans should have access to lifelong learning resources.	-Public Television is already the largest source of telecourses in the nation. -PBS' Adult Learning Service provides more than 70 accredited telecourses to 400,000 post secondary students annually. -Public Broadcasting is a leader in both adult literacy, through its "Literacy Link" initiative, and workforce training, through groundbreaking initiatives such as "The Business Channel" and "Ready to Earn."	6. Digital technology will allow Public Broadcasting to offer post secondary telecourses to thousands more adult learners. 7. Digital technology will significantly enhance telecourses through the integration of data and online content into the programming.
All Americans should have access to public service programming.	-Public Broadcasting is and has been committed to serving the unserved and underserved populations in our country: those who because of economic, geographic, physical, cultural or language barriers have been left behind by the commercial marketplace. -Public Broadcasting pioneered the development of open and closed-captioning for the deaf or hard of hearing, descriptive video service (DVS) and radio reading service for the blind or visually impaired.	8. Digital conversion will allow Public Broadcasters to make noncommercial educational, digital programming and data available to all — including those who cannot afford cable, DBS, computers or Internet access. 9. Digital technology will allow Public Broadcasting to expand its commitment to serving our nation's physically challenged. 10. Digital technology can make programming and information available to non-English speaking populations.

EXHIBIT B

Public Television

Digital Conversion Timetable

Public Television Digital Rollout



Responses of 131 public television licensees (70% response rate)

EXHIBIT C

Selected Public Television Filings

in *Turner II*

[Not reproduced here – one set of these filings has been lodged with the Secretary's office]

EXHIBIT D

Turner II

Public Television Evidence

(Highlights)

TURNER II – PUBLIC TELEVISION EVIDENCE (HIGHLIGHTS)

I. CABLE OPERATORS HAVE SPECIAL INCENTIVES TO DENY CARRIAGE TO PUBLIC TELEVISION STATIONS, PARTICULARLY BECAUSE PUBLIC TELEVISION PROGRAMMING IS NOT AIMED AT A MASS AUDIENCE.

1) The econometric model used by cable companies for evaluating the optimal use of channels "systematically estimates a programming service's revenue contribution. Public television services are unlikely to rate high on implicit or explicit criteria in this sort of decisionmaking." Must Carry: Hearing Before the Subcommittee on Communications of the Senate Committee on Commerce, Science and Transportation, 101st Cong., 1st Sess. 100 (1989), CR Vol. I.F, EXH. 12, CR 04110.

2) Public television stations, in fulfilling their mandate to serve audiences not served by commercial enterprises, often carry precisely the programming that cable systems find economically unattractive, such as instructional programming or minority interest programming. Brugger Decl., ¶ 37.

II. CABLE OPERATORS DROPPED SUBSTANTIAL NUMBERS OF PUBLIC TELEVISION STATIONS OR SHIFTED THE CHANNEL POSITIONS OF THESE STATIONS DURING THE YEARS WHEN MUST-CARRY REQUIREMENTS WERE NOT IN EFFECT.

1) An FCC survey sent to 8,504 cable systems and 1,356 television stations in 1988 elicited returns from 50.6% of the cable systems and 67.3% of the television stations. Respondents were asked to identify drops, noncarriage, and channel shifts that would have been covered by the FCC's rules in effect prior to July 19, 1985.

- **Incidents of denial of carriage**
  - 80 of 237 public television stations reporting had been dropped by or denied carriage on at least one cable system, with 345 total incidents of drops.
  - Of 4,303 cable companies responding, 347 operators reported that they had dropped or denied carriage to a total of 153 public television stations, with total incidents of drops numbering 463.

- **Incidents of being repositioned**

  - 88 of 237 responding public television stations had been repositioned, with 417 total incidents.

  - 432 of the 4,303 cable companies responding reported repositioning 182 public television stations, with a total of 541 incidents.

Federal Communications Commission, Cable System Broadcast Signal Carriage Survey Report, in FCC MM Docket No. 90-4 (Sept. 1, 1988) at 9, 10, 18, 19, CR VOL. I.P, EXH. 52, CR 10645, 10653, 10654, 10662, 10663.

2) National Cable Television Association, Broadcast Station Carriage Survey results

- 205 cable systems (representing 2.5 million subscribers) were not carrying all qualified broadcast stations.

- 305 cable systems had repositioned at least one qualified station since June 1987.

- In each case, about 20% of the stations affected were public television stations.

National Cable Television Association, Broadcast Station Carriage Survey, in MM Docket 88-138 (Sept. 14, 1988), at 1338-39, 1351, CR VOL. I.AA, EXH. 146, CR 15424-25, 15437.

3) Evidence of increases in drops, noncarriage, and repositioning

- In October 1985, the public broadcasters informed the FCC that in just three months since the Quincy decision had been handed down several public television stations had already been dropped, and others had been asked to pay for carriage, "sums they can ill afford." Joint Petition for Rule Making of the Corporation for Public Broadcasting, the National Association of Public Television Stations and the Public Broadcasting Service, MM Docket 85-349 (Oct. 15, 1995), at 11.

- In the summer of 1987, APTS verified a total of 74 stations dropped since the Quincy decision, and 128 instances where stations had been repositioned, as well as eight instances of channel-shift threats from cable companies to local public television stations. For 36 of 44 verified drops between 1985 and 1987 for which information on replacement programming was available, the replacement service was a programming service exclusive to cable. In addition, three of 17 stations that had come on the air since July 1985 had encountered problems obtaining cable carriage. APTS and PBS Comments in MM Docket 88-138, at 15, CR VOL. I.Z, EXH. 140, CR 15299.

- In the spring of 1988, APTS reported to Congress 94 instances in which public television stations had been dropped from cable systems and the service was not restored. There were 197 instances of channel shifting for public television stations. Cable Television: Hearings Before the Subcommittee on Telecommunications and Finance of the House Committee on Energy and Commerce, 100th Cong., 2d Sess. 597 (1988), CR VOL. I.D, EXH. 6, CR 02684 (Testimony of David Brugger).

- In the fall of 1991, APTS advised the FCC that, in a survey of its member stations, at least 16 of the stations responding reported that they had been dropped since 1989 by cable systems with headends within 50 miles of the stations' main transmitters or within the stations' Grade B contours. The majority of these had been replaced with cable exclusive services. Supplemental Comments of APTS in FCC MM Docket No. 90-4 (Sept. 25, 1991), at 14, CR VOL. I.P, EXH. 64, CR 10801.

- In 1987, of the 74 verified cable system drops of a public television signal, only 16 (22%) were later restored. Of the 128 verified shifts of a public television signal from its original cable channel location, only 30 (23%) were later restored to their former channel number. APTS and PBS Comments in MM Docket 88-138, at 12, CR VOL. I.Z, EXH. 140, CR 15306.

- Over the period from 1986 to 1992, 130 drops and 203 channel shifts were reported to APTS. Brugger Decl., Exhibit 6.

- By the end of 1992, 314 public television stations were dropped from carriage by 1,616 different cable systems located within 50 miles of the public television stations dropped. Feldman Decl., ¶ 11.

III. DENIALS OF CARRIAGE AND SHIFTS IN CHANNEL POSITION OF PUBLIC TELEVISION SIGNALS DEPRIVED THE AMERICAN PUBLIC OF UNIQUE NONCOMMERCIAL PROGRAMS, INCLUDING EDUCATIONAL PROGRAMMING FOR SCHOOL CHILDREN AND ADULT LEARNING PROGRAMS.

1) Public television stations provide:

- Instructional programming to 70,000 school districts. Cable Television Regulation: Hearings Before the Subcommittee on Telecommunications and Finance of the House Committee on Energy and Commerce, 102nd Cong., 1st Sess. 831 (1991), CR Vol. I.J, EXH. 18, CR 07835 (Testimony of Henry P. Becton, Jr.).

- A wide range of adult education services, including credit courses in conjunction with local colleges, as well as programs designed to combat adult illiteracy. 1989 Senate Hearings at 112 (Testimony of David Brugger), CR VOL. I.F, EXH. 12, CR 04122.

- Foreign language programming and programming targeted to racial minorities. Cable Television Regulation: Hearings before the Subcommittee on Telecommunications and Finance of the House Committee on Energy and Commerce, 102nd Cong., 1st Sess. 835-40 (1991), CR. VOL. I.J, EXH. 18, CR 7839-44; Comments of CPB, APTS, and PBS in MM Docket 85-349, at 4-5, CR VOL. I.BB, EXH. 163, CR 15987-88.

- Unique services for special needs audiences, such as captioning for deaf and hard-of-hearing people and descriptive video for people who are blind and visually-impaired. 1991 House Hearings at 831, CR VOL. I.J, EXH. 18, CR 07835 (testimony of Henry P. Becton, Jr.).

2) Over two-thirds of public television stations are licensed to state and local government agencies, public colleges and universities, school districts and other public groups which have provided public service programming at a state and local taxpayer investment of $4.9 billion since 1972. Private contributions of $6.1 billion since 1972 constitute the largest source of support for public television and are one indicator of the success of public television serving the needs and interests of local communities. H.R. Rep. No. 628, 102d Cong., 2d Sess. 68 (1992), CR VOL, I.A, EXH. 4, CR 00448.

3) Effects of drops and repositioning on viewer households

- APTS calculated that for the 74 drops it had verified in the summer of 1987, as many as 2.1 million households were unable to see a particular local public television station on their cable system.

- Some three million cable households were affected by the 128 verified channel shifts of local public television stations.

- In a 1987 telephone survey, APTS found that more than half of the 74 verified drops and the 128 verified channel shifts involved stations licensed to local school boards, colleges, and universities.

Comments of APTS and PBS in MM Docket 88-138, at 10, 15, 23 , CR VOL. I.Z, EXH. 140, CR 15298-329, 15307.

4) Examples of the loss of alternative information sources when public television stations are dropped

- KCSM, San Mateo, California, a university licensee, estimated that when it was dropped by Viacom in San Francisco it lost more than half of its paying telecourse enrollments. In addition, vastly more people watched the credit courses without enrolling, and these people were deprived as well.

- When WCET, Cincinnati, Ohio, was dropped by Viacom Cable in Dayton, Ohio, cable subscribers lost access to a number of instructional programs and local companion documentaries that supplemented the Project Literacy Outreach program, as well as classic movies on Saturday night.

- When WGBX, Boston, Massachusetts, was dropped by Heritage Cablevision in Massachusetts and Rhode Island, some 58,000 cable subscribers lost programs not run by another station in the area.

- WLRN, Miami, Florida, licensed to a local school board, was dropped and shifted by various cable systems in Miami. As a result, cable subscribers lost access to a regular schedule of programming in both Spanish and Creole and coverage of high school sports.

Comments of APTS and PBS in MM Docket 88-138, at 17-20, CR. VOL. I.Z, EXH. 140, CR 15301-04.

- When WKAR, East Lansing, Michigan, was dropped from a cable system in Battle Creek, Michigan, viewers lost the only available coverage of the Michigan legislature.

- When Louisiana Public Broadcasting was dropped in Luling, Louisiana, 4,000 viewers lost access to college credit, GED, and other literacy programs.

Supplemental Comments of APTS and PBS in MM Docket 90-4, at 15, CR VOL. I.P, EXH. H, CR 10802.

- When Casper Cable refused to carry Wyoming Public Television, cable subscribers lost access to telecourses offered through local colleges and instructional programs for elementary and secondary schools. Comments of Wyoming Public Television in FCC MM Docket 90-4 (Sept. 26, 1991), at 1, CR VOL. I.Q, EXH. 72, CR 11053.

5) Channel shifting of public television stations had similar adverse effects. When WNPB of Morgantown, West Virginia, had its channel shifted without advance warning by Century Cable in Morgantown, nearly 4,000 students were left without access to instructional programming. Lewis Decl., ¶ 11.

6) By 1992, public television stations had lost access to more than 10 million cable subscribers as a result of being dropped from cable systems. Feldman Decl., ¶ 12.

IV. PUBLIC TELEVISION STATIONS HAVE LIMITED FINANCIAL RESOURCES AND ARE PLACED AT RISK BY THE FINANCIAL EFFECTS OF DENIAL OF CABLE CARRIAGE.

1) Significant numbers of public television stations reported loss of membership and contributions attributable to being either dropped or shifted by cable companies.

- WNIN, Evansville, Indiana, reported a membership loss after being dropped by the cable system in Loogootee, Indiana.

- WIPB, Muncie, Indiana, reported a membership loss after being dropped by the cable system in Bluffton, Indiana.

- When WKAR, East Lansing, Michigan, was dropped from the cable system in Battle Creek, Michigan, it reported a loss of 592 contributing members in the Battle Creek area.

Supplemental Comments of APTS in MM Docket 90-4, at 18, CR VOL. I.P, EXH. 64, CR 10805.

- Following a series of drops by Viacom in 1986 and 1989, KCSM personnel calculated that the station had lost approximately 2,000 members and membership revenue of approximately $90,000 per year as a result of the drops. Hosley Decl., ¶¶ 9, 12, & Ex. 3.

- After WestMarc Cable dropped WKAR from its system in Battle Creek, Michigan, in 1991, a number of Battle Creek viewers canceled their memberships because they could no longer receive the station. The station manager estimated that WKAR had previously received over $38,000 in annual contributions from this area. Within a year membership dropped from 592 to 30 in the Battle Creek area. Meuche Decl., ¶10.

- From 1989 to 1991, when Videotron cable system in Montreal dropped the Vermont ETV signal and refused to reinstate it, Vermont ETV lost more than $150,000 in Canadian viewer contributions. Green Decl., ¶¶5-12.

- WTVS, located in Detroit, Michigan, lost approximately $31,000 per year as a result of being dropped by the cable system in Flint, Michigan, in 1991. Alpert Decl., ¶ 13.

- KIIN, Iowa Public Television, was moved by TCI cable system from its over-the-air channel 12 to channel 22 in four towns in Dubuque County, an area with hilly terrain. Following that action, IPTV noticed that membership increases in the area of the channel shift were down 75% as compared to the rest of the state. The channel shift meant that viewers needed a converter for non-cable-ready sets. Many subscribers apparently did not obtain the converters, did not know how to install them, or did not acquire them for second sets in their homes. 1989 Senate Hearings at 102, CR VOL. I.F, EXH. 12, CR 04113 (testimony of David Brugger).

- Nebraska ETV Network's KTNE was moved from Channel 8 to Channel 28 in Alliance, Nebraska, by the Alliance Community TV Company. The former channel number was subsequently restored,

but in the meantime, the ETV network received many complaints from subscribers. Subscribers complained that the higher number required an additional converter box, which costs extra for second sets. Other viewers complained that the necessity of the converter box required people with remote control units that only work up to Channel 13 to get up from their seats to change the channel, and that this posed a special problem for older citizens. Viewers also complained that the reception was much poorer. One former member of KTNE returned his membership pledge form refusing to contribute until KTNE was moved to a channel with better reception. Comments of APTS and PBS in MM Docket 88-138, at 25, CR VOL. I.Z, EXH. 140, CR 15309.

- When WNPB was shifted to a higher channel by a cable company in Wheeling, West Virginia, WNPB suffered a 46% drop in membership and a 36% drop in revenue from the Wheeling area. Lewis Decl., ¶10.

2) The aggregate dollar contributions to public television stations that were potentially lost in fiscal year 1992 as a result of cable drops were at least in the range of $6 million. Abbott Decl., ¶¶ 16-25.

3) Public television stations have had to make substantial expenditures to achieve restoration of carriage or former channel location.

- WJCT in Jacksonville, Florida, was dropped by a cable system in Palm Coast, Florida. WJCT launched an aggressive member campaign, and station representatives met with the local operator and the system's parent company to urge that service be restored. The station was off the system for six weeks before reinstatement.

- Georgia Public Television was dropped in Peachtree City, Georgia. Georgia Public Television devoted one staff member on a full-time basis to restoring carriage on the system, and several of the organization's executives joined in the campaign. After one month, the service was reinstated.

Supplemental Comments of APTS in MM Docket 90-4, at 16, CR VOL. I.P, EXH. 64, CR 10803.

- WILL-TV, licensed to the University of Illinois and the prime instructional television service for almost 4,000 students in Jacksonville and South Jacksonville, Illinois, was dropped from a Jacksonville cable system and restored only after much effort and

expense by the station. 1991 House Hearings at 842, CR VOL. I.J, EXH. 18, CR 07846.

V. CARRIAGE OF PUBLIC TELEVISION STATIONS IMPOSES A MINIMAL BURDEN ON CABLE OPERATORS.

1) An APTS study showed that, under the carriage requirements enacted as Section 5 of the 1992 Cable Act, most cable systems would be required to carry only one or two public television stations.

- 84% of the nation's cable systems would be required to carry one public television station; 13% would be required to carry two public television stations; and just 3% would be required to carry more than two public television stations. All of these latter cable systems are located in seven large television markets: New York City, Los Angeles, Chicago, San Francisco, Boston, Washington, D.C. and New Orleans.

H.R. Rep. No. 628, 102d Cong., 2d Sess. 71 (1992), CR VOL. I.A, EXH. 4, CR 00450.

EXHIBIT E

Cable Carriage of

Public Television Stations

CABLE CARRIAGE OF PUBLIC TELEVISION STATIONS - 1998

No. of PTV Stations Carried	No. of Cable Systems
0	1,151
1	7,152
2	2,203
3	365
4 or more	86

Source: data from Warren Publishing Inc., 1998

EXHIBIT F

Description of Public Broadcasters' Recommended Approach to Cable Carriage of Public Television Stations During the Transition Period

Public Broadcasters' Recommended Approach to Cable Carriage of Public Television Stations During the Transition Period

- Under the basic rule, a cable operator must carry both the analog signals and the digital signals of public television stations that qualify under Section 5 of the 1992 Act. The carriage obligation for digital signals would become effective as each qualified public television station began broadcasting a digital signal, subject to applicable Section 5 requirements (*e.g.*, provision of a good quality signal to the cable headend).

- An exemption/waiver process would address hardship situations faced by individual cable systems during the first few years of the transition period.

    - Exemptions would not be routinely granted. Factors to be considered in deciding whether an exemption/waiver for an individual cable system is appropriate would include the size of the cable system, whether the system is affiliated with a larger cable operator, technical limitations on the system's ability to transmit digital broadcast signals, and unusual financial circumstances.

    - A cable system would not be entitled to an exemption/ waiver where it had unused channels as of or after July 10, 1998, or where it had added capacity since July 10, 1998. Such systems would be expected to reserve room for digital signals of qualified public television stations (see below).

    - An exemption would be denied if the Commission finds that a cable system is delaying technical upgrades for anticompetitive or other inappropriate purposes.

- Additional provisions would ensure that public television stations are not prejudiced due to a late digital rollout. For example, any cable system with unused channels on or after July 10, 1998, or that adds capacity after July 10, 1998, could be required to reserve slots for digital signals of public television stations that currently have analog carriage on that system, even if those stations have not yet begun to broadcast a digital signal.

    - A public television station could be required to notify the cable operator of its digital broadcast plans in order to be eligible for reservation of a digital slot on a system.

    - Cable operators would be free to use a reserved slot to carry cable programming during the period before the public television station began digital broadcast.

- At various points, the exemption/waiver process would be phased out, so that the Section 5 requirements ultimately become fully effective for digital signals.

    - For example, beginning in 2002, all cable systems with more than 10,000 subscribers could be required, without exception, to carry the digital signal of at least one qualified local public television station (or to reserve a slot for one such signal if none was yet being broadcast).

    - Between 2002 and 2006, the Section 5 requirements would be phased in further. By 2006, all cable systems would be required, without exception, to carry the digital signals of all local public television stations eligible for carriage under the 1992 Act.